

# The Role of Families in the Development, Identification, Prevention and Treatment of Illicit Drug Problems



**Commissioned by the NHMRC for the Strategic Research Development Committee's National Illicit Drug Research Program**

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## PREFACE

The need to better understand the role of families in illicit drug problems has long been recognised as a priority area for research in Australia. A consultative workshop held by the National Illicit Drugs Strategy (NIDS) Research Working Committee of the Strategic Research Development Committee of the NHMRC in March 1998 recommended research on families as one of seven priority areas to be highlighted in a call for research proposals on illicit drugs use. The failure to obtain a competitive pool of applications for research on families and illicit drugs in calls for proposals led the NIDS Research Working Committee to commission this review in an effort to identify what research was being done in Australia and elsewhere in this important area.'

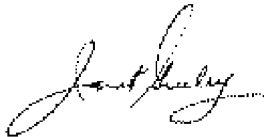
'The Role of Families in the Development, Identification, Prevention and Treatment of Illicit Drug Problems' provides a strategic overview of the key domains of research involving families and illicit drugs. The use of illicit drugs is not determined by any single factor. Likewise, the influence of the family on the uptake and discontinuation of drug use is not simple. The present review provides a very useful overview of research that identifies the main risk and protective factors involving the family that play a role in the aetiology, epidemiology, prevention, early intervention and treatment of illicit drug use. In addition, it provides insights into service and policy development that are of particular significance in the Australian context.

The priorities for research can be classified under six key areas:

- enhancement of current longitudinal research that has the capacity to inform policy and practice regarding the developmental trajectories of illicit drug users and non-users,
- large-scale controlled trials of a range of strategies found to be useful in related areas of problem identification, prevention and behaviour change,
- review and development of inter-sectoral services incorporating sound evaluation and reporting practices to build an evidence base for future service provision,
- identification of risk, protective and intervention factors in special populations in Australia (Indigenous communities, same-sex attracted young people and sole parents),
- identification of the effects of economic and social policy on the ability of families to be protective rather than adding to their children's risk, and

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- community-based research into issues affecting particular communities aimed at enhancing capacity for community involvement in multi-outcome, inter-sectoral program planning, development, implementation and evaluation.

Risk factors for illicit drug use follow developmental trajectories and it is important to intervene at critical transition points. While it is true families influence the behaviour of their members, it must be recognised there are important factors in the social environments that impinge upon a family's ability to act as a positive force. These structural social factors are common to a number of health and well-being outcomes such as antisocial behaviour, crime, mental health problems and homelessness. The development of multidimensional/inter-sectoral approaches are required if significant inroads are to be made. This will require a willingness of State and Commonwealth governments to develop infrastructure frameworks capable of supporting such approaches. Without such support it will be difficult for communities to build and activate the substantial social capital needed to produce change in this area.



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## PROJECT BRIEF

The National Illicit Drug Strategy Working Committee sought a document that would:

- Provide an overview of the key domains of Australian research and literature into the role of families in the development, identification, prevention and treatment of illicit drug use problems;
- Identify changes in family structures and family functions and how these changes impact on the illicit drug use problems;
- Summarise findings of major international reviews in these areas; and
- Identify key research questions that the NHMRC can address nationally on the role of families in addressing illicit drug use problems.

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## INTRODUCTION

This report provides a review of the Australian and international research literature related to the role of families in the development, identification, prevention and treatment of illicit drug use problems.

This review is the first of its kind to be conducted in Australia. Although research findings demonstrating the importance of family factors in the development of illicit drug use problems have been available for more than a decade, practitioners and policy makers have been slow to recognise the significance of this work for the design of initiatives aimed at reducing the use and misuse of illicit drugs in the community.

Recent interest in the role of family factors appears to result from two major factors:

- increased political activism by parents and families of drug users, and
- increased interest in prevention and early intervention strategies among researchers working on a variety of health and social problems closely related to illicit drug use such as crime mental health problems, suicide and homelessness.



Reviews of research into the aetiology of these problems have found strong evidence for the role of family factors, and prevention programs targeting family risk and protective factors have been receiving increased support by governments (Commonwealth Department of Health and Aged Care, 2000a; Commonwealth Department of Health and Aged Care, 2000b; Mitchell, 2000a; National Crime Prevention, 1999; Prime Ministerial Youth Homelessness Taskforce, 1998).

As will be seen in the following chapters, the available research demonstrates that the family does indeed play a highly significant role in the aetiology of illicit drug use problems, and is vitally important in their prevention and treatment.

### SCOPE OF THE REVIEW

Consistent with the Project Brief we have provided an overview of the key domains of research rather than a comprehensive review. The review was conducted by a group with considerable experience in the fields of illicit drugs and families, as well as child and adolescent health. Drawing on this experience we have used, where possible, existing literature reviews that we knew to be of a high standard (comprehensive, balanced, critical). We have not provided detailed descriptions of interventions or the studies on which conclusions are based, rather the main findings are summarised and references provided.

The focus of the review is on illicit drug use problems, and the role of families. However, we have occasionally referred to broader literature when relevant, such as research on legal drugs and other related problem behaviours. Research on the



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influence of family factors is also considered in the context of the broader social context in which families live and function.

## PROCEDURE

As noted above, the members of the Project Team have considerable experience in the fields of illicit drugs and families. The review procedure was designed to make maximal use of this existing knowledge. The procedure involved five main phases:

- individual members of the team prepared initial drafts of the chapters covering the five key domains (aetiology, epidemiology, prevention and early intervention, treatment, service and policy development) according to their particular areas of expertise;
- the Family Information Centre of the Australian Institute of Family Studies conducted searches for reviews and original research in topic areas not well known by team members;
- input to, and critical comments on, draft chapters were obtained from members of the team;
- all draft chapters were reviewed together by the team to identify common themes, which formed the basis of the introduction and conclusion sections of the review; and
- the document was collated and edited to a consistent format.

One team face-to-face meeting and two telephone conferences were held during the project to plan the work and coordinate efforts.

# 1. THE ROLE OF FAMILY FACTORS IN THE AETIOLOGY OF ILLICIT DRUG USE PROBLEMS

## INTRODUCTION

The role of the family in the aetiology of drug use is not simple. There are a number of issues that need to be considered if a comprehensive understanding is to be gained.

First, drug use behaviours are not caused by any single factor, no risk factor is definitive of later drug abuse. Rather, we need to consider the number and severity of risk factors for drug use and abuse (Newcomb, Maddahian & Bentler, 1986; Glantz & Leshner, 2000), the interaction of individual-environmental risk factors (Glantz & Leshner, 2000), and the need to both reduce the risk and promote the protective influences on drug use (Pollard, Hawkins & Arthur, 1999). Further, the risk factors vary across the life span, over time, between cultures and geographic locations, and according to the drug and the specific drug-use behaviour in question (Glantz & Leshner, 2000).

The family is one of a number of influences on youth drug use and abuse. In fact, the family has been described as the single most important risk and protective factor for drug abuse (Merikangas, Dierker & Fenton, 1998; Kumpfer, Olds, Alexander *et al.*, 1998a). Children are socialised by their family, they learn their behaviour patterns, value system, and emotional responses within the context of the family (Kumpfer *et al.*, 1998a). One indicator of the influence of families is familial aggregation of substance misuse problems (Merikangas *et al.*, 1998; Merikangas & Avenevoli, 2000). This aggregation could be due to genetic factors, family influences on other risk factors, and/or environmental factors to which the family is exposed. As illustrated in Figure 1.1 (see end of this chapter), the family has direct effects on drug use, as well as indirect effects, as mediators of other influences on drug use (eg influencing the choice of peers, mediating the impact of local poverty, etc).

Second, the risk and protective factors that are relevant to drug abuse are often relevant to a range of other problem behaviours, such as delinquency (Spooner, Hall & Lynskey, 2001; Jessor, 1998). A model that encompasses the notion of multiple risk and protective factors affecting a range of behavioural outcomes with a common range of health outcomes has been developed by Jessor and colleagues (see Figure 1.2 at end of this chapter). This model suggests that interventions that affect the risk and protective factors for drug use behaviours are likely to affect other problem behaviours, and vice versa. Therefore, collaboration with other programs such as crime prevention can increase the resources available for drug problems and reduce duplication.

On the other hand, it is noted that some risk and protective factors can be specific to drug use. For example, Merikangas and colleagues differentiated specific and non-specific familial risk factors for drug abuse (Merikangas *et al.*, 1998). Specific factors include exposure to drugs, modelling of drugs, and parental concordance for drug abuse. Non-specific factors include marital discord, impaired parenting, neglect and abuse.

Third, influences on drug use are cumulative over the life course of individuals, beginning very early in life (Keating & Hertzman, 1999; National Research Council and Institute of Medicine, 2000). Early child development includes critical and sensitive periods, during which essential stimuli are required for normal (or successful) psychological development. Child development has been described as a series of phases, between which are transition periods. The ability to successfully negotiate a transition is important for coping with the next phase of a person's life. Failure to cope with a transition can create a pattern of cumulative risk factors. Family and social circumstances systematically affect development (Keating & Hertzman, 1999). The implications are that early interventions are important, and transition points are occasions at which interventions can occur most effectively. At these times, individuals tend to be open to advice and learning opportunities that will assist them to cope with the transition. Glantz and Leshner further discuss the developmental perspective in relation to the aetiology of drug abuse (Glantz & Leshner, 2000).

Fourth, family influences are not equally significant. For example, parental modelling factors appear to have less influence than factors relating to the quality of the parent-child relationship and parental family management techniques (Molina, Chassin & Curran, 1995). The salience of parental influences also appears to vary with the substance in question. Kosterman, Hawkins and colleagues found that parents inhibited alcohol initiation by communicating clear norms against alcohol use, while initiation of cannabis use was largely prevented by proactive family management practices (Kosterman *et al.*, 2000). The authors hypothesized that these differences related to the different social norms relating to the use of the different drugs.

Fifth, parents are not the only significant family members. Siblings, uncles, aunts, cousins, grandparents, other relatives or significant others, can have a role in the aetiology and/or continuation of an adolescent's drug abuse (Stanton & Landau-Stanton, 1990). For example, aunts, uncles and grandparents and significant others can be sources of support. Siblings can be role models for drug use.

Finally, distinction needs to be made between terms used for drug use. Drug use is defined as any use of a drug, from one-off to dependent use. Drug misuse is use that is risky (eg drink-driving) or harmful (eg sustained excessive use). Drug abuse is drug use that meets the American Psychiatric Association's criteria for drug abuse published in the Diagnostic and Statistical Manual of Mental Disorders, 4<sup>th</sup> edition (DSM-IV) (American Psychiatric Association, 1994). These criteria essentially define drug abuse as a maladaptive pattern of use that causes significant distress or

impairment for the user. Drug dependence is a condition defined by the DSM-IV, which includes similar problems to drug abuse, plus signs of tolerance. Clear definitions of terminology are important because the risk factors for the initiation of drug use are not the same as the risk factors for drug abuse.

Below is a brief discussion on risk and protective factors for youth drug abuse, with particular emphasis on the direct or indirect role of the family. Given the space limitations for this paper, the review is not comprehensive. The influences that were considered of most import in relation to the role of the family were selected. The review is followed by a brief consideration of how these risk and protective factors vary between sub-groups of the general populations.

The review is based upon existing reviews of the literature on the aetiology of illicit drug use that are known to be rigorous, comprehensive and balanced. Original research is also included when it is specific to Australia, and/or particularly recent and noteworthy. Given the problems with cross-sectional studies of association (Spooner, 1999; Rutter, 1995), care was taken to identify evidence for risk and protective factors that relied upon:

- longitudinal evidence of prospective prediction in community samples, after adjusting for relevant confounders, and
- intervention evidence linking modification of the risk or protective factor to changes in the outcome.

## GENETIC FACTORS

Reviews of the research on genetic influences on drug use behaviours have consistently concluded that genetic factors play a modest but significant role in the familial aggregation of substance misuse problems (Glantz & Leshner, 2000; Merikangas *et al.*, 1998; McGue, 1994), with some gender differences suggesting that genetic factors are more important among males (Merikangas *et al.*, 1998).

While genetic mechanisms have been postulated, no single gene is thought to account for substance use behaviours (Kumpfer *et al.*, 1998a; Weinberg *et al.*, 1998). Rather, genetic predispositions associated with substance abuse include disorders of behavioural self-regulation, temperamental features such as difficulties with affect regulation, thrill-seeking and/or different reactions to drugs making the drugs more pleasurable and easily abused (Kumpfer *et al.*, 1998a; Weinberg *et al.*, 1998). Further, genetic mechanisms are indirect: it is the gene-environment interactions that determine whether an inherited vulnerability will be expressed as drug abuse (Kumpfer *et al.*, 1998a; Weinberg *et al.*, 1998). For example, 'difficult' children provoke harsher responses from parents or gravitate towards antisocial peers (Weinberg *et al.*, 1998).

Glantz and Leshner have noted that the higher the level of drug involvement, the more genetic predisposition seems to be involved (Glantz & Leshner, 2000).

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Merikangas *et al.* concluded that genetic factors play a role in the transition from substance use to dependence (Merikangas *et al.*, 1998).

While environment (including family factors) can mediate genetic predisposition (Kumpfer *et al.*, 1998a), the greater the individual predisposition, the greater the need for a protective environment (Glantz & Leshner, 2000). This is a particular concern in the case of children of parents who are unable to effectively manage any child, let alone a 'difficult' child. Kumpfer and colleagues described multiproblem families, in which mothers are depressed, highly stressed, and poorly educated as lacking skills for this task (Kumpfer *et al.*, 1998a). Merikangas and colleagues identified that assortive mating (parents with common traits selecting each other) by parents with a psychoactive substance use disorder is common, adding to the risk for the children of that family (Merikangas, Rounsaville & Prusoff, 1992).

## FAMILY FACTORS

A number of family characteristics have been found to play an important role in the development of substance misuse along with a range of other adjustment problems (Kumpfer *et al.*, 1998a; Hawkins, Arthur & Catalano, 1995). These include parenting and family-management techniques, family relationships, family role modelling, and family conflict and stress. Family structure has also been associated with youth drug use. Family risk factors for drug abuse, as identified by Kumpfer and colleagues' review, are summarised in Table 1.1 (see end of this chapter). A brief discussion of issues relating to family factors is presented below.

### **Parenting and family management**

Ineffective parental family management techniques such as:

- ineffective discipline and ineffective supervision;
- parental nondirectiveness or permissiveness;
- negative communication patterns (criticism, blaming, lack of praise);
- inconsistent and unclear behavioural limits; and
- unrealistic parental expectations;

have been found to be associated with increased risk of drug misuse (Hawkins *et al.*, 1995; Patterson, Reid & Dishion, 1992). Conversely positive, consistent discipline methods and monitoring and supervision (Merikangas *et al.*, 1998; Kumpfer & Alder, 1999), have been identified as protective factors. The Australian Temperament Project found that adolescents whose mothers virtually never used physical punishment and did not think it was ever appropriate to do so were more likely to be substance users than adolescents whose mothers did use and approve of physical punishment on rare occasions (Williams, Sanson, Toumbourou & Smart, 2000). The importance of family management techniques is related to, among other things, the development of self-regulation, the opportunities that young people have to be exposed to illicit drug

using peers, and, in the case of harsh or inconsistent parental discipline, parental bonding (Kumpfer *et al.*, 1998a).

### **Family relationships, bonding and attachment**

Negative family relationships (Hawkins *et al.*, 1995; Crundall, 1993), including:

- poor family cohesion (Merikangas *et al.*, 1998);
- parental conflict (Merikangas *et al.*, 1998);
- lack of warmth by parents (Williams *et al.*, 2000);
- a lack of sharing of affection and communication with children or lack of parental interest in the child (Kumpfer *et al.*, 1998a; Climent, de Aragon & Plutchik, 1989); and
- low bonding or attachment to family (Williams *et al.*, 2000; Brook & Brook, Gordon *et al.*, 1990a),

have been found to be associated with increased substance use and misuse. Negative communication patterns such as blaming and criticism, in particular, have been found to be associated with increased risk of drug misuse (Merikangas *et al.*, 1998; Hawkins, Lishner & Catalano, 1985). Protective factors include: caring and connectedness within the family (Resnick, Harris & Blum, 1993), parental involvement, warmth, and trust (Hawkins *et al.*, 1995), and family attachment (Hawkins *et al.*, 1995; Fergusson, Horwood & Lynskey, 1995).

The importance of family attachment might be related to, among other things, the willingness of children to adopt the value systems of their parents. Glantz and Leshner have noted that individuals are not just passive responders to risk and protective factors. Individuals can and do make choices, which are influenced by their value system (Glantz & Leshner, 2000). They argue that this affirms the need to teach children the values that will encourage them to want to avoid drug use problems. Parents and families have a major role in this process.

Recent longitudinal research, however, found that bonding to the mother was not predictive of initiation of alcohol or cannabis use (Kosterman *et al.*, 2000). This may be because alcohol and cannabis uses are normative (rather than antisocial or deviant) so bonding is not an issue in its initiation. Australian studies demonstrate lower maternal bonding predicts more frequent youth substance use (Williams *et al.*, 2000).

### **Family role modelling**

Family history of substance abuse is an important family-level risk factor for substance abuse (Merikangas *et al.*, 1998; Lynskey, Fergusson & Horwood, 1998). Australian data confirm parent substance use to be an important predictor of more frequent youth substance use (Williams *et al.*, 2000). The more members of a household, including siblings, who use a drug, the greater the child's risk of early

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initiation of use of that drug (Hawkins *et al.*, 1995). Parental criminality or antisocial behaviour has also been linked to substance use problems in offspring (Hawkins *et al.*, 1985).

Several studies have also found that positive attitudes towards drugs by parents (Merikangas *et al.*, 1998; Kandel, 1982), and perceptions of young people about adult drug use (Barnes, 1981; Huba & Bentler, 1980), may also play a key role in the attitudes and behaviours related to drugs among offspring. However, effects of direct modelling of substance use or the tendency to use substances as a coping strategy (Patterson, 1986), have been shown to have far smaller effects on drug use in offspring than other parental factors (Merikangas *et al.*, 1998; Hawkins *et al.*, 1995; Molina, Chassin & Curran, 1995).

### **Family conflict and structure**

Children raised in high-conflict families have been found to be at greater risk of illicit drug use, and the experience of parental divorce during adolescence has been associated with greater drug use (Merikangas *et al.*, 1998). In well-controlled cross-sectional research in Western Australia sole parent status appeared to increase the risk of youth maladjustment independent of levels of family conflict (Silburn, Zubrick, Garton *et al.*, 1996). A number of studies report that family structure, however, is correlated with neither youth substance use nor delinquency when factors such as family adjustment and socioeconomic status are accounted for (Dryfoos, 1990; Fergusson, Horwood & Lynskey, 1994; Sokol-Katz, Dunham & Zimmerman, 1997). Further, there can be benefits to separation/divorce, particularly from high-conflict marriages (Hess, 1995; Hetherington & Stanley-Hagan, 1999). It is likely that sole-parent households are at greater risk, not because of the number of parents, but because of the additional stress under which those households are often placed. Sole-parent households can suffer significant emotional distress, sole parents who have to work have restricted opportunity to devote time and energy to their children, and those who do not work are often pushed below the poverty line (Hess, 1995).

### **PEERS AND THE FAMILY**

Association with peers who use drugs is one of the strongest predictors of adolescent drug use (Kumpfer *et al.*, 1998a; Williams *et al.*, 2000; Kandel, 1982; Hawkins, Catalano & Miller, 1992; Swadi, 1992; Oetting & Beauvais, 1987; Jenkins, 1996), particularly when that drug use is cannabis or polydrug use (Hoffman, 1993). Specific predictors include drug use by peers, drug-related attitudes of peers, perceived use of drugs by others, perceived support for drug use by peers and peer preference.

However, other social context variables, such as school and family, precede and influence the selection of peers (Kumpfer *et al.*, 1998a). The influence of peers tends to increase as the influence of family decreases (Dishion, Patterson, Stoolmiller & Skinner, 1991), and strong bonds with family and school, can attenuate peer

influences (Kumpfer *et al.*, 1998a; Elliott, Huizinga & Ageton, 1982). For example, parental norms and behaviour could influence adolescents' attitudes and consequent attraction to a particular peer group (Dielman, Butchart, Shope & Miller, 1990-91). Children who like and respect their prosocial parents are less likely to become involved with antisocial peer groups (Kumpfer *et al.*, 1998a). Ineffective parenting may also fail to socialise children, exacerbating conduct problems and aggressive behaviour, and eventually to rejection by prosocial peers (Kumpfer *et al.*, 1998a). Hoffmann warns that the influences of parents and peers are so complex that simplistic cause-effect relationships can be misleading (Hoffman, 1993).

One implication relating to peer influences identified by Glantz and Leshner's review is that grouping young people exhibiting problem behaviours together into separate education or intervention groups can have the unwanted effect of exacerbating problem behaviours (Glantz & Leshner, 2000).

## COPING AND SOCIAL SKILLS

Several groups of researchers have demonstrated that the extent to which adolescents have access to and use effective supports and coping skills influences their likelihood of using drugs as a means of coping with stress (Rhodes & Jason, 1988; Kadden, Carroll *et al.*, 1994; DuBois, Felner *et al.*, 1994).

The family is a child's first social group—exerting influence during the early, formative years of the development of social and coping skills (Glantz & Leshner, 2000; Kumpfer *et al.*, 1998a). Brennan has argued that family relationships are important to the development of social competence in adolescence and that social competence is crucial for resilience against psychopathology including drug use problems (Brennan, 1993).

## SCHOOL

Experiences in school have important influences on the development of youth drug use (Hawkins *et al.*, 1992). For example low school commitment is predictive of illicit drug use (Kandel, Simcha-Fagan & Davies, 1986). However, adjustment to school may be partly mediated by family factors. Parent involvement has been shown to improve academic performance and attendance in students with low school commitment (Hawkins *et al.*, 1992).

## SOCIETAL BONDING

Alienation from the prevailing values of society has been associated with drug use (Merikangas & Avenevoli, 2000; Penning & Barnes, 1982; Calabrese, 1987; Calabrese & Adams, 1990). There is some evidence that adolescent problem behaviours and low social bonds cluster, and that these are preceded by lower school attachment and less parental supervision (Ensminger & Juon, 1998). Inept parenting with poor maternal and neighbourhood monitoring has been attributed to an

escalation of early antisocial behaviour among high-risk children, including lying, stealing, fighting and noncompliance (Kumpfer *et al.*, 1998a).

## TRAUMATIC LIFE EVENTS

Children who have experienced traumatic life events (for example sexual, emotional or physical abuse; neglect; or refugee camps) are at a high risk of detrimental outcomes such as illicit drug use and delinquent/criminal behaviour, and self-destructive and suicidal behaviour (Deykin & Buka, 1997; Dansky, Brady & Roberts, 1994; Clarke, Lesnick & Hegedus, 1997; Harrison, Fulkerson & Beebe, 1997; Hussey, 1996). It is possible that child abuse might be an important mediator in inter-generational transmission, as drug dependence is present in at least half of the families who come to the attention of child welfare authorities for child abuse and neglect (Dore, Doris & Wright, 1995).

Data from a longitudinal panel survey has shown that experiencing a high number of life events over time is related to a significant 'growth' of drug use, even after controlling for age and peer relations (Hoffmann, Cerbone & Su, 2000). This relationship is moderated by family attachment: high levels of attachment serve to diminish this growth significantly.

## SOCIOECONOMIC STATUS

The balance of evidence suggests that socioeconomic status (SES) indicated by, for example, employment levels, is an important factor in the aetiology of substance use problems. SES can be a risk factor at the individual, family and community level.

### **Individual**

Based on data from a prospective longitudinal study conducted in New Zealand, Fergusson *et al* (Fergusson, Horwood & Lynskey, 1997), concluded that youth exposed to unemployment have significantly higher rates of substance use disorders (and anxiety disorders), even after controlling for pre-existing family and personal factors. Fergusson *et al* (Fergusson *et al.*, 1995), found that family social position influences early drinking behaviour and peer affiliations, which in turn, determine later alcohol abuse at age sixteen.

### **Family**

Growing up in a family with low SES has been associated with increased drug use (Brook J, Brook D. *et al.*, 1990b), and abuse (Merikangas *et al.*, 1998). Having a supportive family with high supervision has been found to be protective against problem behaviour among young people at risk due to low family SES (Deykin & Buka, 1997).

## **Community**

Unemployment can cluster geographically, creating economically deprived neighbourhoods (Vinson, 1999). Low SES areas characterised by low income, low cost substandard housing, social problems, racial problems and delinquency have been found to have the highest drug use problems (Smart, Adlaf & Walsh, 1994; Bobashev & Anthony, 1998; Petronis & Anthony, 1999).

## ENVIRONMENTAL FACTORS

Ecological models emphasise environmental influences on drug use (Kumpfer *et al.*, 1998a). Environmental influences on illicit drug use include the media, legislation, and law enforcement strategies (Spooner *et al.*, 2001). Risk factors from the economic environment, the social environment, and the physical environment for illicit drug use and abuse by young people were recently reviewed by Spooner *et al.* (Spooner *et al.*, 2001). It is beyond the scope of this paper to review the environmental risk factors for illicit drug use. It is noted, however, that the family is a significant mediator of environmental influences (Figure 1). Given the difficulty in modifying environmental risk factors, Kumpfer and colleagues have argued that it is important to modify the mediators of these risks: parents and families (Kumpfer *et al.*, 1998a).

## SPECIAL POPULATIONS

Risk and protective factors for illicit drug use problems are not the same across all groups within the population. Family factors in particular are likely to be mediated by social, cultural and historical factors that shape the experience of particular sub-populations. Two population groups that have received attention in the research literature are Aboriginal and Torres Strait Islander peoples, and people whose families have migrated to Australia from non-English speaking countries.

### **Aboriginal and Torres Strait Islander families**

There has been some significant research into drug use by Aboriginal and Torres Strait Islander Australians (Kahn, Hunter, Heather & Tebbutt, 1990; Fleming, Watson, McDonald & Alexander, 1991; Gracey, 1998; Patterson *et al.*, 1999). Aboriginal and Torres Strait Islander Australian adolescents appear to be more likely to have drug-use problems than other Australian adolescents (Gracey, 1998; Forero, Bauman, Chen & Flaherty, 1999; Higgins, Cooper-Stanbury & Williams, 2000). Furthermore, volatile substance abuse (particularly petrol sniffing) among adolescents has been a major issue of concern in many Aboriginal-Australian communities (Brady, 1992).

There appears to be little research that has specifically examined risk and protective factors for illicit drug use in Aboriginal and Torres Strait Islander communities, although Brady has done some work in this area (Brady, 1995).

Homel and colleagues have noted the tendency of Aboriginal and Torres Strait Islander women to use the extended family to care for children, rather than preschool (National Crime Prevention, 1999). This can be problematic, if, as Homel and colleagues suggested, parenting skills have been lost as a result of the forced removal of children from their parents. Service providers consulted for their study suggested that the low rates of use of preschool could contribute to Aboriginal and Torres Strait Islander children 'falling behind' other Australian children in terms of the socialising and cognitive development that preschool can provide.

An Aboriginal Child Health Survey is currently being conducted in Western Australia and it is anticipated that this will provide some valuable information about risk and protective factors associated with a range of outcomes related to illicit drug use. During preparation for this survey researchers from the Western Australian TVW Telethon Institute for Child Health Research consulted with Aboriginal and Torres Strait Islander communities to identify risk and protective factors seen as important to child health by those communities (Silburn, 2001). Family factors emerged as one of four main groups along with school, community and peer/individual factors.

Family risk factors identified by Aboriginal and Torres Strait Islander communities were: financial stress; housing/overcrowding; family strain/conflict; poor discipline; parental attitudes favourable to drug use; parental attitudes favourable to antisocial behaviour; and, stress of caring for chronically ill or disabled family members. Family protective factors identified by Aboriginal and Torres Strait Islander communities were: presence of one or more parents/caregivers; employment of parents; strong family attachments; opportunities for prosocial involvement; rewards for prosocial involvement; home support for school involvement and activities; parenting skills; and, cultural involvement.

### **Ethnicity, migration and the family**

Australian research generally suggests that adults and young people born overseas and from at least some non-English-speaking backgrounds are less likely to use drugs (Rissel, McLellan & Bauman, 2000a; Rissel, McLellan & Bauman, 2000b). However, generalisations cannot be made to all cultural groups in all areas. For example, pockets of problems have been identified, such as the problem of heroin use among South East Asian youth in south-western Sydney (Maher, Dixon, Lynskey & Hall, 1998), and in Melbourne (Louie, Krouskos, Gonzalez & Crofts, 1998).

Higher rates of drug-use among some immigrant communities may stem from family isolation (Louie *et al.*, 1998), family disruption associated with traumatic refugee experience (Groves, 1993), and/or loss of parental control over adolescents due to differential acculturation and role reversal (Kumpfer *et al.*, 1998a). On the other hand, having rules and good parental supervision has been found to be protective against substance use among adolescents from some Australian ethnic communities (Maher *et al.*, 1998).

The Victorian Department of Human Services (Public Health Division Victorian Department of Human Services, 2000), has recently published a study of the involvement of ethnic communities in Victoria with illicit drugs. This study utilised a variety of methods including literature review, review of media reports, analysis of data from various statistical collections, key informant interviews, and community consultations. A major finding was that socioeconomic status manifest in high youth unemployment and low levels of literacy, rather than ethnicity per se, was the major contributor to high risk behaviour and drug use in culturally and linguistically diverse communities. Family factors were identified as important mediators. These included: poverty; lack of discipline for young people; unrealistic pressures on children to succeed; lack of communication in families; lack of effective parenting skills and supervision; broken families; and, generational/cultural conflict.

Illicit drug use problems were found to be a severe problem among young people in some sections of the Vietnamese community in Melbourne (Public Health Division Victorian Department of Human Services, 2000). The high degree of socioeconomic disadvantage experienced by those sections of the Vietnamese community was considered to be, at least in part, the reason.

The Victorian Department of Human Services (Public Health Division Victorian Department of Human Services, 2000), study reviewed 132 criminal justice and 200 health and related publications on illicit drug use among culturally and linguistically diverse populations. It found that most of this research literature has methodological problems including inadequate conceptualisation, inaccuracy of definitions and inappropriate research designs. Most research was from the United States.

## EXPLAINING THE INCREASED PREVALENCE OF SUBSTANCE MISUSE PROBLEMS

Drug use and other problem behaviours among young people have increased in recent years (Keating & Hertzman, 1999; Bauman & Phongsavan, 1999), and the age of initiation to illicit drug use has decreased (Degenhardt, Lynskey *et al.*, 2000). Kumpfer and colleagues (Kumpfer *et al.*, 1998a), have speculated that the global trend to increased illicit drug use 'is related to increased numbers of children being raised in poverty, resulting in parents working more hours and spending less time with their children. Parental neglect is related to poor school achievement, association with drug using peers, and eventually tobacco, alcohol and other drug use' (Kumpfer *et al.*, 1998a, p43). They further speculated that poverty and a lack of legitimate jobs in particular areas leads young people and families to illegitimate means of making a living, with drug production and trafficking being particularly lucrative options (Kumpfer *et al.*, 1998a). Keating and colleagues, on the other hand, have linked these problems to the increasing gaps between socio-economic groups and to rapid social changes (Keating & Hertzman, 1999).

Eckersley has discussed how Australian youth feel alienated, pessimistic and powerless. He described western culture as failing 'to provide an adequate framework of hope, moral values, and a sense of belonging and meaning in our lives, so weakening social cohesion and personal resilience.' (Eckersley, 1997, p423).

As reflected by the above discussion, multiple factors are likely to have contributed to the increased prevalence and earlier age of initiation of illicit drug use. The above discussion also suggests that the family is in an important position to directly and indirectly influence child development and drug use behaviours.

## IMPLICATIONS FOR TREATMENT AND PREVENTION

The aetiological literature demonstrates that illicit drug use problems are caused by, and moderated by, a complex variety of interacting risk and protective factors that operate in a variety of life domains. This suggests that interventions need to address multiple risk and protective factors. Thus family focused interventions need to be implemented in concert with interventions operating in multiple spheres. In particular, interventions need to be tailored and targeted to address factors that operate at the level of individuals, groups with particular vulnerabilities, and whole populations (indicated, selective and universal interventions).

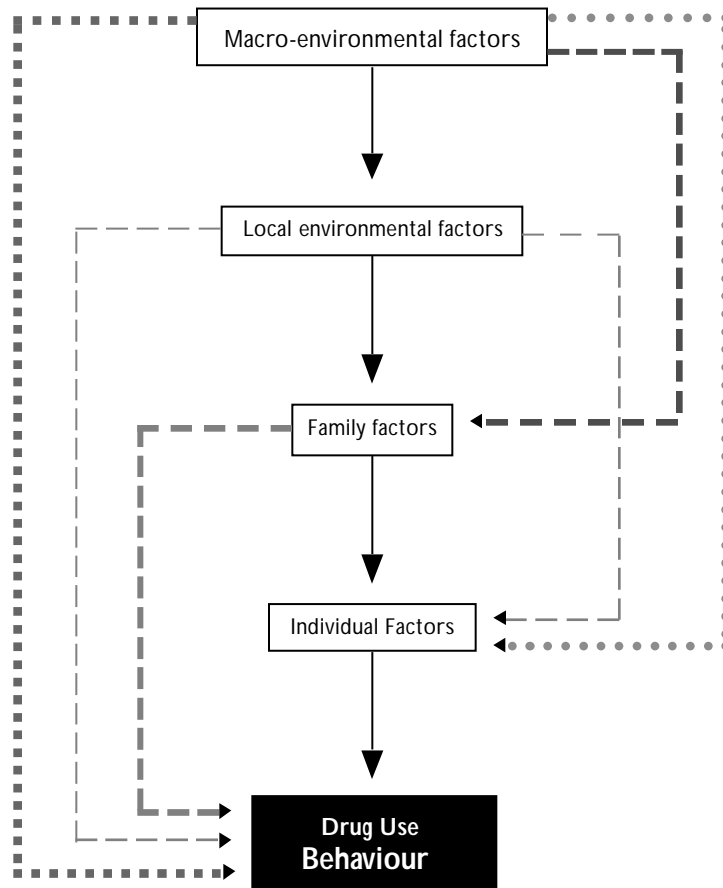
The salience of different risk and protective factors varies over the course of an individual's development. Interventions need to be developmentally appropriate. Furthermore most risk factors are not independent of each other. Exposure to particular risk factors, especially at a young age (eg low family bonding) and in the absence of effective early intervention, can increase the likelihood of exposure to other risk factors later in development (eg low school attachment and association with deviant peers). The longer one's developmental trajectory is channelled along problematic pathways, the more risk factors accumulate. This indicates the importance of intervening early in problematic pathways and of sustaining interventions over multiple developmental stages.

Drug use problems frequently co-occur with other problem behaviours and other negative health and wellbeing outcomes. These outcomes also frequently share risk and protective factors, especially early in the course of development, so effective interventions may often have multiple benefits. Cost-effectiveness gains may accrue if interventions are designed with the potential for multiple goals in mind eg suicide prevention and crime prevention.

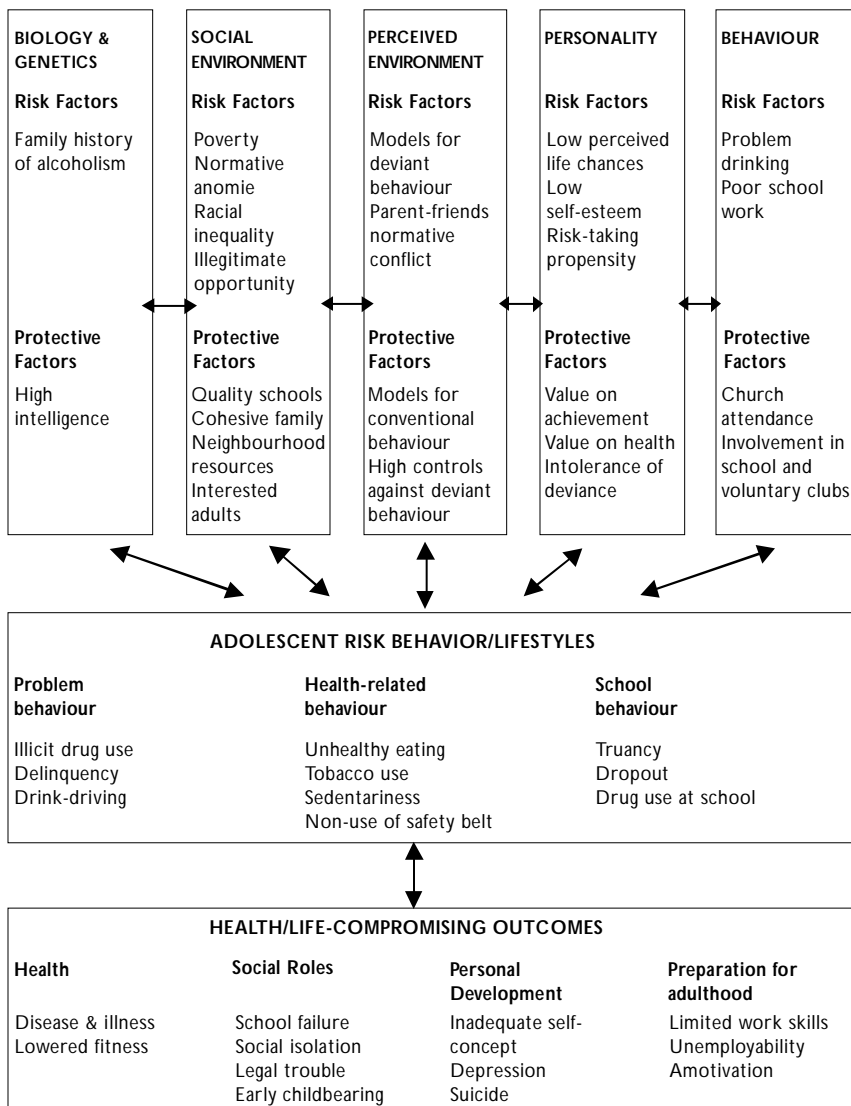
In sum, given the complex interaction of biological, psychological, social, and family factors in determining developmental pathways towards substance misuse problems, approaches to treatment and prevention need to be holistic, early, intensive, sustained over time, and need to particularly target at-risk families.

**Figure 1.1: Influences Model**

Source: Adapted from: Spooner C, Hall W & Lynskey M. *Structural determinants of youth drug use* (ANCD Research Paper No. 2). Australian National Council on Drugs, Canberra: 2001.



**Figure 1.2: Interrelated conceptual domains of risk factors and protective factors:  
Jessor's risk and protective factors for adolescent risk behaviours**



Source: Jessor, R., ed. *New perspectives on adolescent risk behavior*. Cambridge: Cambridge University Press, 1998.

**Table 1.1: Family factors associated with drug abuse**

**Family history of behaviour problem**, including:

- parental or sibling role modelling of antisocial values and drug-taking behaviours
- favourable attitudes about drug taking
- parental criminality, psychopathology, antisocial personality disorder & substance abuse

**Poor socialisation practices**, including:

- failure to promote positive moral development
- neglect in teaching life, social, and academic skills to the child or in providing opportunities to learn these competencies
- failure to transmit prosocial values and disapprove of youth's use of drugs

**Ineffective supervision of the child**, including:

- failure to monitor the child's activities
- neglect
- latchkey conditions
- sibling supervision
- too few adults to care for the number of children

**Ineffective discipline skills**, including:

- lax, inconsistent, or excessively harsh discipline
- parental behavioural undercontrol or psychological overcontrol of the child
- expectations that are unrealistic for the developmental level of the child creating a failure syndrome
- excessive, unrealistic demands or harsh physical punishment

**Poor parent-child relationships**, including:

- lack of parental bonding and early insecure attachment
- repeated loss of caregivers
- negativity and rejection of the child by the parents, including:
  - cold and unsupportive maternal behaviour
  - lack of involvement and time together, resulting in rejection of the parents by the child
- maladaptive parent-child interactions

**Excessive family conflict and marital discord with verbal, physical, or sexual abuse**

**Family disorganisation, chaos, and stress**

- often because of poor family management skills, life skills, or poverty

**Poor parental mental health, including depression and irritability**

- which cause negative views of the child's behaviours, parental hostility to child, and harsh discipline

**Family isolation** :

- lack of supportive extended family networks
- family social insularity
- lack of community support resources

**Differential family acculturation:**

- role reversal
- loss of parental control over adolescents by parents who are less acculturated than their children

Source: Kumpfer, KL, Olds DL & Alexander JF. *Family aetiology of youth problems*. In R.S. Ashery, E.B. Robertson, and K.L. Kumpfer (Eds), *Drug abuse prevention through family interventions (NIDA Research Monograph 177)*. Rockville, MD: National Institute on Drug Abuse: 1998: 42-77.

## 2. THE EPIDEMIOLOGY OF RISK AND PROTECTIVE FACTORS FOR ILLICIT DRUG USE PROBLEMS AMONG AUSTRALIAN FAMILIES

### INTRODUCTION

This chapter reports the most recently available data on the prevalence of, and trends in, risk and protective factors for illicit drug use problems among Australian families. The data are organised according to the groups of risk and protective factors identified in the aetiological research reported in Chapter 1 of this review.

### PREVALENCE OF DRUG USE AND DRUG USE PROBLEMS AMONG AUSTRALIAN FAMILIES

As noted in Chapter 1 of this review, one of the risk factors for drug use problems is the presence of drug use problems among family members, particularly parents.

There are no published Australian data available about the prevalence of illicit drug use or drug use problems among people who are parents or who have significant responsibility for the care of children. However there are some data available which provide indications. The National Drug Strategy Household Survey is conducted approximately every three years. Publications of the 1998 National Drug Strategy Household Survey provide only a small amount of data that is indirectly relevant to the prevalence of drug use problems among members of families.

Relevant questions included in the 1998 survey publications were marital status and type of living arrangement. The survey did not collect data about the parental status of respondents. Adhikari & Summerill (1998) report that recent illicit drug use (including heroin, amphetamines and marijuana) was more prevalent among people who were never married (2.3 per cent, 10.5 per cent and 36.1 per cent), or divorced or separated (0.3 per cent, 10.5 per cent and 17.9 per cent) than those who were currently married (0.2 per cent, 0.9 per cent and 10.1 per cent). Data about type of living arrangements of respondents have not been published.

Unpublished data from the 1998 Australian Institute of Health and Welfare Drug Strategy Household Survey showed that 30.8 per cent of 'parent' households (ie households where the respondents were aged 20 years and over and lived with dependent children) reported recent use of tobacco, while 80.9 per cent reported recent use of alcohol. Fifteen per cent of these households reported recent marijuana use and 0.5 per cent reported recent heroin use (Australian Institute of Health and Welfare, 2001).

Further analysis of the unpublished data by AIHW was conducted by restricting the sample to respondents aged between 20 and 55 years. This analysis showed that recent drug use (in the last 12 months) of most kinds was significantly lower in 'parent' households (ie those with dependent children) compared with 'non-parent' households', particularly recent use of illicit drugs (Australian Institute of Health and Welfare, 2001). Prevalence of recent illicit drug use among 'parent' households was as low as 0.3 per cent for heroin, and as high as 16.2 per cent for marijuana. Amphetamines and ecstasy/designer drugs had been used recently in 2.0 per cent and 1.0 per cent respectively of parent households.

Adhikari & Summerill (1998) report data on the incidence of verbal and physical abuse during alcohol and other drug related incidents in the previous 12 months. Ten point three per cent of people over 14 years reported having been verbally abused by someone in a drug related incident, while 2.4 per cent reported being physically abused and 7.4 per cent 'put in fear'. Parents, spouses/partners and former spouses/partners were commonly represented among persons alleged to be responsible for various forms of abuse during alcohol or other drug related incidents. Of the persons who reported being verbally abused in the previous 12 months, 91 per cent reported being verbally abused by a spouse or partner, 86 per cent reported being abused by a parent and 76 per cent said they had been abused by their child. Of persons reporting being 'put in fear' in the previous 12 months, 36 per cent reported abuse by a spouse or partner, 35 per cent reported abuse by a parent and 36 per cent reported abuse by an other relative. The most common alleged perpetrator of physical abuse during alcohol and other drug related incidents, was former spouse/partner or boy/girlfriend (30 per cent).

Unpublished data from the 1993 Western Australia Child Health Survey showed that 4.8 per cent of parents responded positively to the single questionnaire item 'A family member has a problem with alcohol and drugs' (Zubrick, 2001).

The 1993 Western Australia Child Health Survey also asked families about the occurrence of life-stress events in the 12 months previous to the survey. Six point eight per cent of respondents reported a family member (defined as a parent, child, grandparent or relative living in the household) as being in drug/legal 'strife'. These two events were categorised together for analysis because they were found to be highly correlated. This statistic was analysed by family type. It was found that 'a family member in drug/legal strife' occurred in 4.3 per cent of families where the household was made up of the original family, 10.7 per cent of step/blended families and 14.8 per cent of sole parent families (Zubrick, Silburn, Garton *et al.*, 1995).

## PARENTING AND FAMILY MANAGEMENT

The aetiological research reported in Chapter 1 of this review shows that parenting and family management practices have been associated with risk for illicit drug use problems.

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The Western Australian Child Health Survey collected and reported data on the prevalence of different parenting styles that have been found to be associated with risk for, or protection against, a range of behavioural problems (Silburn, Zubrick, Garton *et al.*, 1996). Silburn *et al.* identified four main parenting disciplinary styles, each of which differ by (a) the method of discipline (coercive vs non-coercive) and (b) the frequency of reinforcement (low vs high):

- an encouraging parenting style (low coercion, high reinforcement);
- an inconsistent parenting style (high coercion, high reinforcement);
- a neutral parenting style (low coercion, low reinforcement); and
- a coercive parenting style (high coercion, high reinforcement) (pp. 42).

An encouraging parenting style was the most commonly reported pattern of parenting (49 per cent of parents reported using this style), followed by inconsistent parenting (38 per cent). Neutral and coercive parenting styles are far less common (seven per cent and five per cent respectively).

Data were also collected on the methods used to discipline children. Seventy per cent of parents reported frequently using reasoning, while 29 per cent of parents reported shouting or yelling. Sending the child to their room was reported by 14 per cent of parents and taking away privileges was reported by ten per cent of parents. Rates of physical methods of discipline (such as smacking, shaking and hitting with an object) were much lower and decreased with the age of the child. Seventy two per cent of parents of four to 11 year-olds, and 82 per cent of parents of adolescents reported never hitting their child/children with an object. Similar figures were reported for shaking or shoving (Zubrick *et al.*, 1995).

A survey of risk and protective factors conducted in 1999 among 9,000 young Victorians attending 535 secondary schools, (Victorian Department of Human Services, 2000; Bond, Thomas, Toumbourou *et al.*, 2000), found 'poor family discipline' and 'family conflict' as reported by young people to be highly prevalent, especially among young people in Years 9 and 11. These were in fact the two most prevalent risk factors reported by young people. The third most prevalent risk factor reported was 'availability of drugs in the community'. The second most prevalent protective factor reported by young people was 'rewards for positive involvement in the family' (eg enjoy spending time with parents, parents notice when doing something well). This was second behind 'opportunities for positive community involvement'.

Another key finding of the survey of young Victorians was that many problem behaviours shared common risk and protective factors (Victorian Department of Human Services, 2000).

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## FAMILY RELATIONSHIPS, BONDING AND ATTACHMENT

There are very few data available about the quality of relationships in Australian families. The most recent data available were collected in the early 1990s.

The Australian Living Standards Study conducted by the Australian Institute of Family Studies from 1990 to 1992 studied a sample of 2,850 young people (aged 11 to 19 years) and their parents. Relationships within the family were found to be among the most satisfactory aspects of life for this sample. Nevertheless, three to five per cent of boys and girls indicated clear dissatisfaction with their relationship with their parents (Weston, 1997).

The 1993 Western Australian Child Health Survey found that over 12 per cent of families experienced high levels of family discord, as measured by the Family Assessment Device (Silburn *et al.*, 1996). These families appear to be characterised by poor interpersonal communication, and tend to have difficulty making decisions and expressing feelings.

The Western Australia Child Health Survey also found that 73 per cent of children in the study lived with two parents who had an excellent or good relationship and 8.7 per cent lived with parents who had a fair or poor relationship. Two point six per cent of children lived with one parent who had an excellent or good relationship with a non-resident adult and 1.8 per cent of children lived with one parent who had a fair or poor relationship with a non-resident adult. Eleven point three per cent of children lived in families with one parent who had no relationship (Silburn *et al.*, 1996).

## FAMILY STRUCTURE

The balance of evidence indicates that family structure is not independently associated with youth substance use problems or delinquency when factors such as family adjustment and socioeconomic status are accounted for. However sole-parent households do appear to be at greater risk because of the additional stress to which these households are often exposed.

Data from the 1997 Family Characteristics Survey showed that 72 per cent of all families with at least one child aged from birth to 17 years of age were intact couple families, while 21% were one-parent families (Australian Bureau of Statistics, 1998). The remaining 7 per cent lived in blended or step-families. Among children in sole-parent families, 88 per cent lived with the mother and 12 per cent with father. Of couples with children aged from birth to 17 years of age, 91 per cent were married and 9 per cent were defacto.

Over the last ten years, the proportion of couple families has reduced, while sole-parent families have increased. Among families with dependent children, the proportion which are sole parent families has risen from nine per cent in 1974, to

15 per cent in 1986 and to 19 per cent in 1996 (Australian Institute of Health and Welfare, 1997).

The Australian Bureau of Statistics predicts that the number (and proportion) of children living in two-parent households will decline over the next 20 years (Australian Bureau of Statistics, 1999a). The proportion of children living in one parent households is projected to increase, but due to declining fertility it is not clear whether the total number will remain the same (around 1.1 million) or increase to 1.9 million by 2021. The number of one parent families is projected to increase by between 30 per cent and 66 per cent up to 2021.

Available data about the living arrangements of children and young people are almost exclusively cross-sectional. Information about the different living arrangements that children experience throughout their childhood is more relevant to child development (Australian Institute of Health and Welfare, 1997). Precise information is not yet available from longitudinal studies in Australia, but it is estimated that between 30 per cent and 40 per cent of children experience the breakdown of their parents' relationship during their childhood, or are not born into a continuing relationship (Australian Institute of Health and Welfare, 1997).

It is rare for standard statistical collections to consider the existence and strength of family relationships beyond the nuclear family household (Australian Institute of Health and Welfare, 1997). The increase in the number and proportion of one parent households is due to increases in the proportion of children born outside of co-habiting relationships as well as increases in the breakdown of relationships. This is occurring in the context of a strong trend away from co-residential relationships more generally (Australian Institute of Health and Welfare, 1997).

Apart from the 1993 Western Australia Child Health Survey data reported above, there are little data available about the quality of relationships between parents who are not living together, or between parents living alone with children, and other relatives.

## SOCIOECONOMIC STATUS, UNEMPLOYMENT AND THE FAMILY

Drawing on Australian Bureau of Statistics data for the period 1982 through 1997–98, Harding and Szukalska 1999, conclude there has been a fall in the incidence of poverty among children in Australia. They suggest that increases in government income support, and the introduction of the Child Support Scheme in 1988 are responsible for this fall.

Nonetheless, a solid body of Australian data suggest that being a sole parent, most of whom are female, continues to provide the greatest likelihood of economic disadvantage (Weston, 1986; Weston, 1993; Shaver, 1998; Smyth & Weston, 2001).

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Australian Bureau of Statistics data for 1997 showed that 68.4 per cent of one parent families with at least one child aged between birth and 17 years of age had a weekly income of \$499 or less. This compared to 14.9 per cent of couple families (Australian Bureau of Statistics, 1998). In 1997, 9.8 per cent of all dependent children lived in one parent unemployed families. Four point four per cent of all dependent children lived with two parents who were both unemployed.

Gregory and Hunter (1995) have noted that growing numbers of sole parents—who tend to be women and to be unemployed—are increasingly concentrated in low SES neighbourhoods. Hence they argue that there are more children growing up in disadvantaged communities.

In considering the role of unemployment within families as a risk factor for negative health outcomes, it is important to consider joblessness rather than unemployment. Unemployment rates as defined by the Australian Bureau of Statistics do not capture people, many of whom are women, who are not working and would like to work but are not actively looking for work (as defined by the Australian Bureau of Statistics). In terms of risk factors for negative health outcomes, joblessness is probably equivalent to unemployment.

Gregory (1999) has recently reviewed trends in joblessness within Australian families. In 1998, 18 per cent of dependent children lived in a family in which no parent was employed. In 1979, the proportion was 11 per cent. There is no evidence of a reversal of this trend. In 1998, 45.1 per cent of dependent children lived in families where both adults worked. In 1979, this proportion was 35.7 per cent. There has been an increase in the proportion of couple families with no adult employed from five per cent in 1979 to nine per cent in 1998. There has been a decrease in the joblessness rate of sole parent families from around 62 per cent in 1979 to around 56 per cent in 1998.

It has been demonstrated that unemployment is increasingly being concentrated into family units (Miller, 1997). Furthermore, using data from the 1976 and 1991 censuses, Gregory and Hunter (1995) show that within major cities, two job families are congregating together. On a geographic basis families are polarising in areas of similar socio-economic status, that is, into neighbourhoods of work rich and work poor families.

## TRAUMATIC LIFE EVENTS

Moon, Rahman & Bhaia (1998) report data on child abuse. In 1996, six per 1,000 children (N=23,404) aged between birth and 14 years were subject to substantiated child abuse and neglect in Australia. This was higher for girls than boys, particularly girls aged between 10 to 14 years. Girls were more likely to be subject to emotional and sexual abuse, boys were more likely to be subject to physical abuse and neglect. Emotional abuse and neglect were highest amongst boys and girls aged between birth to four years of age. Physical abuse was highest among boys and girls aged between 10

to 14 years of age. Sexual abuse was highest among 10 to 14 years girls. In 1996, there were 2.7 children per 1,000 population under care and protection orders.

The latest figures from the Australian Institute of Health and Welfare (2000) show that the number of child protection notifications has increased in recent years. From 1995-96 to 1998-99, the total number of notifications (excluding the Northern Territory) increased from 91,219 to 102,624. The rate of substantiated cases of child abuse and neglect among children aged between birth and 17 years of age increased from 4.1 cases per 1,000 children in 1988-89 to 6.6 cases per 1,000 children in 1994-95. This rate decreased slightly to 6.4 cases per 1,000 children in 1995-96. In 1995-96, emotional abuse accounted for 31 per cent of cases, physical abuse accounted for 28 per cent of cases. Neglect and sexual abuse accounted for 24 per cent and 16 per cent of cases respectively. In the 1998-1999 period, there were 25,063 substantiated cases of child abuse and neglect Australia-wide. Further, 8,367 children were admitted to care and protection orders in Australia (excluding the Northern Territory) during 1998-99. This equates to 3.8 children per 1,000 aged between birth and 17 years of age at end of June 1999. Eight per cent of these children were in facility based care, while 88 per cent were in home based care (relatives, kin, foster care etc).

There are no figures published on the number of people (children or adults) in Australia who have lived in refugee camps overseas. However Australian Bureau of Statistics data for 1998-1999 show that 11.4 per cent of the 77,300 total arrivals were 'Humanitarian settler arrivals' (Australian Bureau of Statistics, 2000). The percentage of migrants who are in this category has steadily decreased since 1994 when 16.3 per cent of overseas arrivals belonged to this category.

In 1998-99 the number of people who arrived in Australia on boats without authority was 930, an increase of 490% compared to 1997-98 (ABS 2000).<sup>1</sup> The Department of Immigration and Multi-Cultural Affairs official web-site (Australian Department of Immigration and Multicultural Affairs), reports that at 23 March 2000, 3,622 people were held in immigration detention centres in Australia.

## SOCIETAL BONDING

School attachment and retention are indicators of societal bonding. Australian Bureau of Statistics data (Moon, Meyer & Grau, 1999) show that Year 12 retention rates rose steadily from 1984 to 1992 for both males and females, from 42 per cent for males and 48 per cent for females in 1984 to 73 per cent for males and 82 per cent for females in 1992. However retention rates have declined since 1992, with 66 per cent of males and 78 per cent of females continuing to Year 12 in 1998.

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<sup>1</sup>Effect size refers to the improvement achieved by the program expressed as a proportion of the standard deviation of the outcome scores. In this case the outcomes improved by 0.86 of a SD. For example, if we were talking about changes in scores with a mean of 100 and an SD of around 16, it would mean a shift from a mean of 100 to a mean of around 113-114.

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The Western Australia Child Health Survey (Zubrick, Silburn, Gurrin *et al.*, 1996), found that 3 per cent of school students had 40 or more days absent (average of one day per week) in 1993. This is regarded as a 'significant disruption' to their education. A further 11 per cent had an average of one day away from school per fortnight. Students from one parent and step/blended families had higher numbers of absences (10.2 and 9.8 days respectively) compared to the total population of students (7.7 days). There was also a generally higher level of absences when the level of parental income was lower.

The Western Australia Child Health Survey (Zubrick *et al.*, 1996), also found that while most adolescents (78 per cent) liked attending school, almost one in five (19 per cent) disliked or felt alienated from school. The students who felt alienated from school had an increased likelihood of smoking tobacco and using marijuana. School alienation did not vary with family structure or parental income.

The Australian Temperament Project found that 16 per cent of 15 to 16 year olds had reported 'wagging' school at least twice and 11 per cent had wagged once. At age 13 to 14 years, seven per cent of this sample reported wagging school at least twice and a further 3 per cent had wagged once (Prior, Sanson, Smart & Oberklaid, 2000). Absence from school is an indicator of low attachment.

#### RISK FACTORS AMONG ABORIGINAL AND TORRES STRAIT ISLANDER FAMILIES

The Western Australia Aboriginal Child Health Survey currently being conducted by the TVW Institute for Child Health Research is collecting data about the prevalence of a range of risk and protective factors in Aboriginal families and communities. It is anticipated that data will be published in late 2001 and 2002. Available data on the health and wellbeing of Australia's Aboriginal and Torres Strait Islander population indicates that some family risk factors for illicit drug use are more prevalent than in the non-Indigenous population.

In the 1996 Census 1.9 per cent of families were classified as Aboriginal or Torres Strait Islander (Australian Bureau of Statistics, 1998). The proportion of one parent families was higher for Aboriginal or Torres Strait Islander families (29.6 per cent) than other families (14.2 per cent). Aboriginal or Torres Strait Islander families tended to be larger overall, 12.9 per cent having four or more children compared to 4.7 per cent of other families. Aboriginal or Torres Strait Islander people are more likely to live in multi-family households compared to other families (14.4 per cent compared to 3.1 per cent), (Australian Bureau of Statistics, 1998).

According to a recent report from the Australian Bureau of Statistics and the Australian Institute of Health and Welfare (Australian Bureau of Statistics & Australian Institute of Health and Welfare, 1999), the unemployment rate at the time of the last Census was 23 per cent for Aboriginal or Torres Strait Islander people compared to nine per cent for non-Indigenous people. The median weekly income for

Aboriginal or Torres Strait Islander males aged 15 and over was \$189 compared to \$415 for non-Indigenous males. For Aboriginal or Torres Strait Islander women, the median weekly income was \$190 compared to \$224 for non-Indigenous women. The median weekly household income for Aboriginal or Torres Strait Islander households (\$540) was lower than for non-Indigenous households (\$632) despite their generally larger size.



In the 1994 National Aboriginal and Torres Strait Islander Survey (NATSIS), 50 per cent of Indigenous males and 77 per cent of Indigenous females reported receiving government benefits of some kind. These were mainly employment-related payments for males and mainly family payments for females. Government payments were reported to be the main source of income for 55 per cent of Aboriginal and Torres Strait Islander adults (Australian Bureau of Statistics & Australian Institute of Health and Welfare, 1999).

Aboriginal or Torres Strait Islander children are more likely to be under care and protection orders and/or out of home placements than are other children. At 30 June 1998, Indigenous children made up 17.4 per cent of the children on care and protection orders (2,868 out of 16,499). Aboriginal or Torres Strait Islander children made up 18.3 per cent of the (2,634 out of 14,422) children in out-of-home placement (Australian Bureau of Statistics & Australian Institute of Health and Welfare, 1999).

Further, Aboriginal or Torres Strait Islander children, whilst comprising only three per cent of the child population in Australia, represented eight per cent of substantiated cases of abuse and neglect (Australian Bureau of Statistics, 1999b). This was particularly the case for neglect, where 13 per cent of substantiated cases involved Indigenous children. The latest data from the Australian Institute of Health and Welfare also confirm previous findings that Aboriginal or Torres Strait Islander children are more likely to be the subject of a substantiation of neglect rather than abuse (Australian Institute of Health and Welfare, 2000).

## FUTURE DIRECTIONS FOR EPIDEMIOLOGICAL RESEARCH

Much of the available data about the prevalence and trends in risk and protective factors for illicit drug use problems among Australian families derive from studies of small samples with uncertain representativeness with respect to the total Australian population. Much of the data from larger samples, such as the Western Australia Child Health Survey is now out of date. Trend data that are available tend to be restricted to more distal risk factors such as family structure/type and socioeconomic status. There are little or no trend data on important proximal family risk factors such as family relationships and parenting style. Available data do not allow tentative conclusions or even plausible hypotheses to be drawn about relationships between secular changes in family factors and increases in the prevalence of illicit drug use problems in Australia. There are no data about the prevalence of



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particular patterns of exposure, such as particular combinations of risk and protective factors, over particular lengths of time.

Data about trends in family based risk and protective factors for illicit drug use problems are important for the design, targeting and evaluation of prevention and early intervention programs. Ideally the design of epidemiological research should allow researchers to explore the relationships between changes in the various factors over time. In other words it is important that a consistent set of data be collected at regular intervals of time using sampling techniques that generate a consistently representative sample of Australian families or households.

The prevalence and severity of negative outcomes such as illicit drug problems is likely to depend heavily on the length of time that individuals are exposed to risk and protective factors. Cross sectional data such as that collected in the National Drug Strategy Household Survey cannot tell us about length of exposure. Data from longitudinal surveys are required (see Chapter 1).

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### 3. PREVENTION AND EARLY INTERVENTION PROGRAMS INVOLVING FAMILIES

#### INTRODUCTION

This chapter reviews evaluation research that has examined the efficacy and effectiveness of prevention and early intervention programs targeting illicit drug use and involving families. This review has grouped studies according to two dimensions:

- the age group or developmental stage the program is designed to work with; and
- how broadly the program is targeted: universal; selective; or indicated.

Four developmental stages are considered:

- infancy;
- preschool;
- primary school; and
- high school.

Universally targeted programs affect all families in a population. Selective programs target families that are beginning to develop problems identified as risk factors for substance use. Indicated programs target families of individuals who are beginning to use or misuse drugs, or families where parents are themselves substance misusers.

While we have presented programs targeting the primary and high school years separately, it is important to note that many of the programs presented in this group actually bridge the transition from primary to high school ages in Australia. Furthermore several programs were originally developed for older or younger age groups, and have been adapted for wider implementation throughout schools, often in particular regions. Similarly, several programs were originally developed as indicated interventions targeting young people and families with drug use problems, and have been adapted to target a broader section of the population.

Before describing the results of specific programs and studies we summarise some of the general principles underlying prevention and early intervention strategies related to illicit substance abuse that involve families.

#### **Ecological approach**

There is evidence that it is counter productive trying to work with young people alone, to change their attitudes, knowledge, skills and behaviour, with programs that are targeted at them, as individuals, or in association with their peers, in isolation

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from their families and schools. In fact it may sometimes result in increased use of harmful substances (Dishion & Andrews, 1995).

The aetiological research tells us that health and wellbeing outcomes are not driven by an individual's genetic make-up and biological characteristics alone, but result from interactions between biology, life experience and the kinds of environments in which children and adolescents develop. Central amongst these environments are family, school and peer groups. Broader social influences, such as the cultural values of the whole society (often mirrored through arts, the media and political discourse) or those in the sub-culture in which the young person's family of origin is embedded, the quality of neighbourhoods and ease of access to harmful substances, are also important.

Consistent with this, the literature on early intervention for children exposed to family and social risks emphasise the importance of an ecological perspective (Zuckerman & Kahn, 2000; Bronfenbrenner, 1989; Dishion & Kavanagh, 2000). Having an ecological perspective suggests, for example, that for school-aged children, attending to the school environment, as well as family factors, may be needed to bring about comprehensive improvements in children's behaviour.

### **Developmental approach**

As noted above, child development occurs in the context of transactions between children and their environments (Sameroff & Chandler, 1975). As children age, their developmental capacities change, altering their reciprocal interaction with an ever widening world. This provides changing opportunities to impact upon the increasing repertoire of individual developmental characteristics and environmental settings. Interventions in multiple settings designed to impact upon multiple strands of development have particular merit. Moreover, it is important to recognise that interventions can be targeted at various points along the pathway to substance abuse and disorder - delaying the initiation of experimentation, limiting the progression to regular use, misuse, and disorder, and encouraging desistance.

Our understanding of human development provides a framework for recognising the importance of supportive environments with each new step from dependence to independence. The emerging person is sufficiently malleable to benefit from interventions that might facilitate wellbeing at each step along the developmental pathway. However, the longer one's developmental trajectory is channelled along problematic pathways, the more energy is required to change its course and the more difficult it will be to redress damage to developmental potential. This provides an incentive for intervening early in problematic pathways, but also gives foundation to the concept that risk is never destiny. It also highlights the fact that one off interventions at a particular developmental stage are never going to be sufficiently robust to protect high risk individuals from the vicissitudes of life experience for all time; recurrent support acts like a booster (Shonkoff & Phillips, 2000; National Crime Prevention, 1999).

### **Empowering approach**

Individual development is a struggle to achieve personal autonomy, which if frustrated leads to resentment and oppositional behaviour. The environmental circumstances and experiences of many people who are at risk for involvement in illicit substance abuse, and their families, are often ones that have seen this drive frustrated. One consequence of this is the formation of alliances with others who have been similarly marginalised (Keating & Hertzman, 1999). Another is oppositional behaviour towards those who are perceived as having more power or knowledge, or are seen as wanting to help or impart their own knowledge.

Accordingly, professionals helping families are increasingly seeing their role as that of coach, helping people with whom they work to become more self-efficacious and sharper at observation so that they gain new insights into their own and others' behaviour and its consequences. Similarly, professionals are encouraging parents to recognise that they have a similar role in the case of their offspring—encouraging self-directed and self-reflective learning in their children (and, in the case of younger children, play)—rather than employing coercive and didactic methods to shape developmental progress. The concept of professionals empowering those with whom they work to recognise needs, solve problems and enact solutions that are consistent with their heart's desire is an attitude that is now considered important in helping parents to become attuned to their offspring throughout the developmental years (University of Colorado Health Sciences Center, 1997; Brooks-Gunn, Berlin & Fuligni, 2000; Beckwith, 2000).

### **The foundational importance of connection to significant others**

Throughout the developmental years and into adulthood, the nature of our connection to significant others remains an influential determinant of both the general domain of health and the specific behaviour of substance use. In infancy, survival itself is dependent on physical and emotional nurturing. The work of Bowlby (Bowlby, 1969), in the mid-twentieth century placed central importance on infant-caregiver bonding and attachment in the determination of later relationships and mental health outcomes. More recent research has demonstrated an influential role for attachments throughout childhood, adolescence and adulthood. The sense of attachment between young people and significant others appears important regardless of whether the relationship is with parents, or others located in schools, peer groups or the broader community. Social attachments appear important in providing models for values and behaviours, and for mediating access to supports, opportunities and skills that are each implicated in the development of substance abuse. Interventions aimed at strengthening positive relationships with parents and other adults throughout the developing years can do much to buffer adolescents against environmental or experiential risks for both substance abuse and a range of other health compromising behaviour (Brook J., Brook D., Gordon *et al.*, 1990c).

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## INTERVENTIONS IN THE ANTENATAL AND INFANCY PERIOD

### **Universal and selective programs**

The most well researched type of intervention targeting the antenatal and infancy period is professional home visiting. Whilst home visitation programs have been offered to all first time mothers (Barker & Anderson, 1988), intensive nurse home visitation has been shown to be most cost-effective when provided as a selective intervention to women at increased risk by virtue of factors such as young age, poverty and lack of partner support. Several studies have found improvements in attachment between mothers and babies in families visited by nurses prenatally and in infancy (Sanders, 1998; Jacobson & Frye, 1991; Booth, Barnard, Mitchell & Spieker, 1987). Home visitation has been disseminated widely, but there is some evidence the program may fail to achieve benefits with low risk families (Karoly, Greenwood, Everingham *et al.*, 1998).

One of the most rigorous, well replicated and well-documented programs is that of Olds and colleagues (Olds, Eckenrode, Henderson *et al.*, 1997). Regular nurse home visiting, from late pregnancy until the child's second birthday, that focused upon parental self-development, the promotion of secure attachment and the acquisition of parenting skills, yielded a range of improved parental and child outcomes over the first 15 years of the child's life. These included lower rates of smoking and alcohol use in pregnancy and in the offspring, as well as reductions in cigarette related cognitive impairment in preschoolers.

Professional home visiting has also been found to be highly cost-effective when selectively targeted to first time, single, poor teenage mothers. Savings and returns to government, of around five dollars for every dollar spent on the program, have been found over the first 15 years of the child's life (Karoly *et al.*, 1998).

### **Indicated programs**

Indicated programs for the infancy and antenatal developmental stage have mostly targeted mothers who are experiencing substance misuse problems.

Parents with addictive behaviour have often been exposed to inadequate parenting when they were children and have lessened parental competence, gaps in child-rearing knowledge including inappropriate expectations of their child, higher levels of insecure attachment with their children and impaired 'goodness of fit' with their child (Brook *et al.*, 1990c). These parents are often focused on survival needs rather than on parenting goals emphasised in the child development literature such as sensitivity, responsiveness or attachment.

A growing range of programs designed to improve impaired attachment between parents and children are emerging (Van den Boom, 1994; van Ijzendoorn, Juffer &

Duyvestyn, 1995), but their relevance to parents involved in substance abuse has not yet been adequately explored.

An Australian study (Armstrong, Fraser, Dadds & Morris, 1999), as well as an earlier American study (Black, Nair, Knight *et al.*, 1994), found some gains for substance abusing parents in a professional home visiting program. There were trends towards increased drug abstinence, increased compliance with appointments, increased developmental stimulation opportunities at home, increased emotional responsivity and marginal increases in cognitive scores at six months which were not maintained at one year or 18 months.

Grant, Streissguth, Ernst *et al.*, (1994) reported improvements in birth control, reductions in homelessness, improved participation in parenting classes and better child health care from a program offering support and advocacy by paraprofessional advocates during the child's first three years. Carmichael-Olson & Kendall (1994) also reported improved developmental outcomes at four months in an antenatal and postnatal program that offered short term residential and intensive outpatient service coordination, treatment and family support with parenting and child care.

## INTERVENTIONS IN THE PRESCHOOL YEARS

### **Universal and selective programs**

Early preschool combined with home visits has been found to be effective in reducing later onset criminal behaviour and substance abuse. Among the best known programs is the Perry Preschool project which offered four half-days of structured preschool experience combined with weekly home visits over two years for disadvantaged three and four year olds. Improved outcomes in criminal behaviour and conduct disorder were observed over the children' adolescent and young adult years (Schweinhart, Barnes, Wiekart *et al.*, 1993). Cost benefit analyses of this program over a 27 year period suggest returns of over six dollars for every dollar invested.

### **Universal, selective and indicated programs**

Behavioural family interventions have been shown to have benefits in universal, selective and indicated settings (Taylor & Biglan, 1998; Sanders, 2000). The intensity of the program is tailored to the needs of the client group, with more intensive programs being offered to higher risk categories of parents such as substance abusers.

These programs are directed at improving parenting skills and, in particular, reducing the pattern of coercive parenting which is a risk factor for later disruptive behaviour disorders, adolescent criminality and substance abuse. They include self-control training for parents, parent enhancement therapy directed at issues such as self-esteem, marital adjustment, and social problem solving skills. Strategies, such as role playing and modelling, are used to impart principles of behaviour management not just skills.

<sup>2</sup>The effect size of these programs is very large (0.86), with two thirds of participants showing improvement in targeted behaviours. The cost is modest - 20 hours of group intervention with parents of young children. Programs can also be offered individually. Behavioural family interventions are successful in enrolling around two thirds of those eligible.

Serketich & Dumas (1996) undertook a large meta-analysis of such programs. They noted that there was poorer compliance with these programs among high risk groups with higher risk of improvements not being maintained. However, these authors concluded that the 'average child whose parents participated was better adjusted after treatment than 80 per cent of children whose parents did not participate'.

### **Indicated programs**

Catalano, Gainey, Fleming *et al.*, (1999) describe a promising one-year follow-up of a family focused intervention (*Focus on Families*) with methadone-treated parents that aimed to reduce parents' drug use and reduce children's initiation of drug use. The intervention supplemented methadone treatment with 33 sessions of family training combined with nine months of home-based case management. One hundred and forty four parents and their 178 children ranging in age between three to fourteen years were randomly assigned to intervention and control conditions and assessed at baseline, six months and twelve months post-intervention.

Seventy-four per cent of assigned families were actively engaged in the intervention and at the one year follow-up, parents involved in the intervention:

- showed increased problem solving skills in drug-related role play situations;
- noted that more rules were defined in their households;
- reported reductions in domestic conflict;
- reported less contact with deviant peers; and
- reported less drug use than controls.

Cocaine and heroin usage declined by two-thirds. There was, however, little change noted in children's behaviour or attitudes. The possibility of sleeper effects, noted in the adolescent family intervention literature (Krinsley, 1991), cannot be dismissed (see later).

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<sup>2</sup>ABS (2000) Migration 1998-99. Australian Bureau of Statistics, Catalogue 3412.0, Canberra.

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## INTERVENTIONS FOR PRIMARY SCHOOL CHILDREN

### **Universal programs**

The Triple P program, which has been implemented widely in several Australian states, provides parent education for parents of primary school aged children. Parents are targeted through a variety of community settings, such as general practitioners and other primary care services. The program appears effective in impacting substance abuse risk factors including childhood behaviour problems (Sanders, 2000). Triple P also incorporates selective level interventions for families with children experiencing behaviour problems. Outcomes in reducing youth substance abuse are unknown.

Preparing for the Drug Free Years (PDFY), (Catalano, Kosterman, Haggerty *et al.*, 1998), is an example of a universal prevention program and targeted at parents of pre-adolescents (aged eight to 14 years). Involving 120,000 families, it has been subjected to several large-scale dissemination and effectiveness studies across 30 states of the United States and Canada. It is based on the social development model, an integration of social control, social learning and differential association theory. The model emphasises the role of bonding to prosocial family, school and peers as protection against the development of conduct problems, school misbehaviour and substance abuse. The model views bonding – comprising attachment and commitment – as a protective factor which leads to acceptance of the beliefs and standards of the person to whom one is bonded.

Bonding to the family is hypothesised to result from a process involving three factors:

- the extent to which prosocial opportunities for involvement with the family are available;
- the skills the child uses in participating in the family to complete tasks, solve problems and interact with others; and
- the rewards and punishments provided by parents for behaviours that conform or violate family expectations and beliefs.

In five two-hour sessions, PDFY seeks to:

- increase opportunities for involvement and interaction between parents and children;
- teaches parents and children to resist peer pressure (using cognitive behaviour techniques) and to refuse to engage in inappropriate behaviour;
- increases rewards for prosocial behaviour through practising consistent and contingent family management; and
- managing and reducing family conflict.

PDFY has been widely disseminated in different cultural groups and settings. An extensive evaluation has demonstrated fidelity of those providing the program to the core concepts, and significant overall improvement in intervention-targeted parenting behaviours, general child management and parent-child affective quality both for mothers and fathers (Spoth, Redmond, Haggerty & Ward, 1995; Spoth & Redmond, 1996).

## INTERVENTIONS IN THE HIGH SCHOOL YEARS

Social Marketing campaigns have been implemented by the Commonwealth and state governments in Australia aimed at encouraging and assisting parents to communicate with adolescents about alcohol and drug use. Despite extensive investment, little is currently known regarding the impact or outcomes of these programs.

A considerable number of family focused programs targeting the high school years have now been extensively evaluated, mostly in the United States. This research is yielding some consistent indications as to the features of programs that are effective in reducing family risk factors for illicit drug use problems and enhancing family protective factors.

Positive impacts have been demonstrated for a range of distal risk and protective factors for substance use problems such as:

- parent confidence and satisfaction (Toumbourou & Gregg, 1999),
- parental mental health (Kumpfer, Alexander, McDonald & Olds, 1998b),
- child involvement in family activities (Spoth, Redmond & Shin, 1998),
- general family management and parenting skills (Toumbourou & Gregg, 1999; Harrison, 1994; Harrison & Proschauer, 1996),
- child behaviour problems (Harrison, 1994; Harrison & Proschauer, 1996; Dishion & Kavanagh, 2000),
- parent-adolescent conflict (Toumbourou & Gregg, 1999; Dishion & Kavanagh, 2000), parent-child attachment (Egeland & Erickson, 1987; Egeland & Erickson, 1990),
- adolescent attachment/detachment from family and family bonding (Toumbourou & Gregg, 1999; Spoth *et al.*, 1998),
- parental drug use (DeMarsh & Kumpfer, 1985),
- communication about alcohol and drug issues (Spoth *et al.*, 1998; Perry, Williams, Veblen-Mortenson *et al.*, 1996),
- anger management (Spoth *et al.*, 1998),
- school performance (Bry, Catalano, Kumpfer *et al.*, 1988),
- association with deviant peers (Dishion & Kavanagh, 2000), and

- social competence (Lochman & Wells, 1996)

as well as proximal risk factors such as aggressive and antisocial behaviour and delinquency (Toumbourou & Gregg, 1999; Dishion & Kavanagh, 2000; Lochman & Wells, 1996), and substance use (Toumbourou & Gregg, 1999; Dishion & Kavanagh, 2000; Perry *et al.*, 1996; Bry *et al.*, 1988).

Three key common features of effective programs are that:

- they are implemented through schools;
- they use a combination of universal, selective (and sometimes indicated) targeting involving a tiered approach; and
- they tend to include interventions targeting parents as well as adolescents.

Several of the programs reviewed here were originally designed as selective and indicated programs targeting families of children at high risk of developing alcohol and other drug problems, and have been modified for use in universal settings.

The review below describes a number of intervention components that are common among universal and selective programs targeting the high school years.

### **Parent education and skill development**

A key component of the universal level intervention provided by programs targeting the high school years is parent education. Parents are provided with a range of educational inputs aimed at enhancing their knowledge on topics such as adolescent development, positive family management practices and family communication issues. An example of a universal parent education component is the Family Resource Room that was established in the school setting by the Adolescent Transitions Program (ATP), (Dishion & Kavanagh, 2000). Joint parent-child homework activities is another approach that has been used successfully by the ATP (Dishion & Kavanagh, 2000), and Project Northland (Perry *et al.*, 1996), to deliver parent education.

A number of programs have also implemented focused parenting skills development groups involving both universal and selective targeting approaches. For example, the following organisations run groups for parents:

- the Strengthening Families Program (SFP) (Egeland & Erickson, 1987; 1990);
- the Iowa Strengthening Families Program (ISFP, a universally targeted version of the SFP) (Spath *et al.*, 1998);
- the Coping Power Program (CPP) (Lochman & Wells, 1996); and
- an Australian program called Parenting Adolescents: a Creative Experience (PACE) (Jenkin & Bretherton, 1994).

The topics covered vary somewhat, but generally include issues such as:

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- parents' potential positive influence on young people;
  - understanding the development and characteristics of young people at this age;
  - ways to provide nurturing support;
  - learning to deal effectively with young people in everyday interactions,
  - limit setting, and following through with reasonable and respectful consequences, and
  - sharing beliefs and expectations regarding alcohol and other drug use.

In the PACE program the groups typically involve about ten parents who meet for two hours each week for eight weeks. In the CPP program, which is selectively targeted at parents of boys with high levels of teacher-rated aggression, the parent groups involve 16 sessions, and include a stronger focus on parenting practices such as discipline, as the evidence suggests discipline can mediate aggressive behaviour.

### **Intensive parenting support**

Several programs have included interventions that provide more intensive support to parents and families at higher risk. The ATP has proactive home visiting over the summer months to develop a 'plan for success' for each middle school student. Parent self-assessment is further assisted by the use of videos and checklists. The ATP also includes a selective component called the Family Check-Up (FCU) which offers family assessment and professional support and motivation to change (Dishion & Kavanagh, 2000). It is an in-depth intervention based on motivational interviewing that supports parents' accurate appraisal of their child's risk status and provides parenting resources for reducing risk factors and promoting adjustment. Rao (Rao, 1998), evaluated the impact of the FCU in a study of 40 high-risk families randomly allocated to the intervention or a wait-list control and found that parents in the experimental group reported substantial reductions in their child's behaviour problems as well as improvements in their own parenting practices.

The Families and Schools Together (FAST) program (a selective program targeting families at risk) (Kumpfer *et al.*, 1998b), includes eight weekly two-hour multi-family meetings with a last meeting graduation, and two years of monthly multi-family meetings run by graduating parents to provide maintenance and enhance social support networks. Parents are initially recruited by outreach involving home visits.

### **Parent, child/adolescent and combined interventions**

Evaluations of the Coping Power Program (CPP) (Lochman & Wells, 1996), and the Strengthening Families Program (SFP) (DeMarsh & Kumpfer, 1985), found that a combination of parent and child/adolescent interventions is more effective than parent or child/adolescent interventions alone. This combination appears to be particularly beneficial for selective programs intervening with families of children with behaviour problems.

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The CPP targeted boys with high levels of teacher-rated aggression in fourth and fifth grades who are considered to be at risk of subsequent substance abuse. The child component (provided in a 33-session group format) focused on the social-cognitive difficulties of aggressive children and was based on an anger coping program that has demonstrated substance use prevention effects at 3-year follow up in adolescents. The parent component was provided in a 16-session group format offered in community and school settings, and addressed alternative, less harsh methods of discipline, increased monitoring of young people's activities and stress management for the parents.

The Iowa SFP (Spoth *et al.*, 1998), and FAST (Kumpfer *et al.*, 1998b), also include a group intervention for adolescents as well as for parents. Young people's sessions in the ISFP focus on strengthening prosocial dreams and goals for the future, dealing with stress and strong emotions, appreciating parents and elders, increasing the desire to be responsible, and building skills to deal with peer pressure.

CCP, SFP, FAST and TAFMI are four selective programs that include a combined child-parent intervention in addition to parent only and child only interventions. In the SFP, parents and children attend separate classes for the first hour and work together in family sessions for the second hour. De March and Kumpfer (1985) found that when all three components (parent skills training, child skills training, and combined parent-child family skills training) were offered simultaneously in a coordinated manner, children's risk and protective factors for drug use improved, the use of tobacco and alcohol decreased in the older children who were already using, and parents reduced their drug use and improved in parenting efficacy.

The SFP has been implemented in a variety of settings—schools, rural and urban communities, low income neighbourhood community centres, mental health centres, churches, public housing complexes, drug treatment agencies and hospitals—and with a diversity of population groups—African-American families, Asian and Pacific Islander families, Hispanic families, and universally across Iowa (ISFP). There are two versions of the program—one for high risk junior high school students and their families and another that targets primary school aged children of drug abusers (indicated program). Outcome results across these settings and populations have shown the SFP to be robust in dissemination, successful in recruitment and engagement, with consistently positive and sustained impacts on family-based risk and protective factors and children's behaviour using standardised measures (Harrison, 1994; Harrison & Proschauer, 1996; DeMarsh & Kumpfer, 1985). While a cost-benefit or cost-effectiveness analysis has not been conducted, this is now proposed in a multi-racial sample in Washington DC. The United States National Institute for Drug Abuse has selected SFP as one of three substance abuse prevention programs for national dissemination.

The Iowa SFP, which is a universal program, also includes combined parent and adolescent groups or meetings. In combined sessions of the ISFP, parents and young people each practise listening and communicating with respect, identifying family

strengths and family values, using family meetings to teach responsibility and solve problems, and planning fun family activities.

As we move towards the more selective/indicated end of the targeting spectrum, interventions tend to be more tailored to the needs of individuals. For example the Targeted Adolescent/Family Multisystems Intervention (TAFMI), uses an individual focused intervention targeting high school students and parents. TAFMI targets poor middle school performance, early adolescent substance abuse, or the initiation of substance abuse. There is strong evidence that the combined intervention is critical for positive outcomes. A therapist meets weekly both individually with an 'at risk' youth at school, and together with the young person and his or her parents at home over several months. Meetings focus on what the young person can do to improve his or her behaviour or academic performance, helping the young person work towards these goals and coaching parents in facilitating and recognising this achievement. Evaluation of this program has shown a sleeper effect. Students who received the TAFMI intervention were compared with those who received only school-based counselling. While no group differences in school performance or substance use were observed during the academic year in which the interventions occurred, the grade-point average of the adolescents who had only received school-based counselling began to decrease, while that of the intervention group increased during the following year. By the end of the second year, the students in the two groups were on entirely different trajectories; indeed, while those receiving school based counselling increased their substance use, not one of the adolescents who received both school-based and family-based counselling initiated or increased their substance use (Bry *et al.*, 1998).

### **Indicated interventions**

A variety of family-therapy related interventions have been evaluated and found to be effective in reducing risk factors for illicit drug use problems among high-school-aged young people.

Moderate to large effect sizes have been observed in evaluations of Functional Family Therapy (FFT) in reducing acting-out and delinquent behaviours in indicated populations, when compared with alternative or no treatment controls (Barton, Alexander, Waldron *et al.*, 1985; Gordon, Arbuthnot, Gustafson & McGreen, 1988; Klein, Alexander & Parsons, 1977; Alexander & Parsons, 1982), including a large meta-analysis (Hazelrigg, Cooper & Bourduin, 1987; Bry, Catalano *et al.*, 1998). Alexander and colleagues found that with less serious offenders, reductions in recidivism ranged from 50 to 75 per cent and with very severe cases a 35 per cent reduction was found. Family communication patterns were also observed to change, with a decline in negative/blaming communication (Alexander, Barton, Shivo & Parsons, 1976; Robbins, Alexander, Newell & Turner, 1996).

Gustafson and Cooper (1985) conducted a cost benefit analysis and found that the direct costs of FFT were significantly lower than the cost of probation only. Lipsey

(1992) found that a family-based Californian delinquency prevention program saved law enforcement and juvenile justice systems \$1.40 for every dollar spent.

Szapocznik, Kurtines, Perez-Vidal *et al.*, (1988) compared the effects of brief/strategic structural family therapy with adolescent group therapy in a sample of Hispanic families with adolescents aged 12 to 17 years who were either using drugs, or were at risk of drug use due to behaviour problems. Subjects assigned to the family intervention showed significantly greater improvement in behaviour problems than did the subjects assigned to the control condition – both conduct disorder and socialised aggression. The families who were noted to be functioning poorly showed significant pre-therapy to post-therapy improvement.

A series of studies by Henggeler and colleagues including randomised controlled trials has demonstrated consistently positive results for Multisystemic Therapy (MST) in reducing recidivism and substance misuse among juvenile offenders (Henggeler, Melton & Smith, 1992; Santos, Henggeler, Burns *et al.*, 1995). Multisystemic Therapy (MST) is grounded on a social-ecological model of developmental psychology and intervenes in a variety of systems and processes known to be related to the psychosocial problems of the adolescent including family, peer groups, educational and vocational settings, as well as the individual. Among the multiple systems targeted in multisystemic therapy, the family system is identified as most central. MST also recognises that the family or caregiver may present significant clinical challenges (Cunningham & Henggeler, 1999).

Liddle and Dakof (1995) reported that multi-dimensional family therapy that targeted adolescent functioning, parenting practices and parent-adolescent interaction, resulted in improvements in parenting, with benefits including less power-assertive discipline, more monitoring and more positive discipline and communication.

An Australian study investigated the intervention opportunity that can arise when parents initially recognise adolescent substance abuse. Parents in these situations often experience considerable distress, which can undermine effective responding. In an effort to provide a cost-effective method of assistance Blyth, Bamberg and Toumbourou (2000) developed an eight-week, professionally led, group intervention. High rates of depression observed among participating parents at pre-test were observed to drop substantially over the course of the intervention (Bamberg, Toumbourou, Blyth & Forer, in press). A small evaluation incorporating a wait-list control group revealed differential improvements for those exposed to the intervention in mental health, parental satisfaction and assertive parenting behaviours (Blyth *et al.*, 2000). The impact of these changes on youth substance abuse is not yet known.

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## **Strategies for engaging parents**

Ranges of strategies have been effectively used to engage parents of high school students in prevention and early intervention programs. The PACE program, which is universally targeted, used parent information evenings and school newsletters (Jenkin & Bretherton, 1994), and the FAST program used outreach involving home visits to engage parents in its selective level intervention (Kumpfer *et al.*, 1998b). The SFP (also selective) offers a range of incentives to increase recruitment and retention.

Engaging families of children and young people with behavioural problems is not easy, and appears to depend on the extent to which families feel empowered by the therapeutic approach. Multisystemic Therapy (Cunningham & Henggeler, 1999), and Strategic Structural Systems engagement (Szapocznik & Kurtines, 1989), have achieved high levels of success in engaging and retaining multi-problem families in the intervention.

## **Other factors mediating effectiveness**

A tiered approach that is sensitive to the developmental history of the young person and family, specifically taking into account the length of history of behaviour problems, appears to be an important factor in the success of prevention and early intervention programs targeting the adolescent years. Families of young people with a longer history of disruptive behaviour are provided with more intensive and structured intervention.

Evaluation of the ISFP by Spoth, Redmond and Shin (Spoth *et al.*, 1998), showed that maximum benefits were obtained when both mothers and fathers were involved.

Evaluation of the CCP showed that intervention appeared to have more notable effects on boys' aggressive behaviour at home when it began in the year before transition to the middle school and continued throughout the first year in the new setting (Lochman & Wells, 1996). This suggests that early intervention may have maximal effect when provided at developmental transition points, when children and parents are concerned about upcoming changes and are relatively open to intervention.

## **Sleeper effects**

Several researchers (Bry, Conboy & Bisgay, 1986; Krinsley, 1991), have found evidence of delayed or 'sleeper' effects on youth substance abuse precursors as a result of interventions which combine home-based and school-based counselling. This was particularly notable in the TAFMI program. It is postulated that the most likely determinants of the sleeper effects are the increased influence and involvement of the young person's family members across time.

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## FUTURE DIRECTIONS FOR PREVENTION AND EARLY INTERVENTION RESEARCH

There is now substantial evidence that family interventions can be implemented across a variety of settings and developmental periods. While there is evidence of positive outcomes for a number of interventions that focus on a single developmental period or setting, more sustained benefits are commonly noted when appropriate preventative interventions are maintained across settings and developmental periods.

Most of the programs that have been evaluated have been developed in North America, and Australian experience of their implementation and evaluation is limited. Notable exceptions among programs reviewed here include the Triple P (targeting the primary school years) and the PACE program (targeting the high school years). Australian research is necessary to identify the conditions under which other programs will work in uniquely Australian settings, particularly selective and indicated programs and programs targeting the antenatal, infancy and pre-school years.

A variety of parenting programs targeting a range of developmental stages, and strategies for disseminating programs, were trialed as part of the National Youth Suicide Prevention Strategy (NYSPPS) (Mitchell, 2000a). While these programs were explicitly targeting risk and protective factors for suicide, these factors overlap closely with risk and protective factors for illicit drug use problems. Capacity for delivery of these programs in service systems throughout Australia has been enhanced under the NYSPS through improved program documentation and provision of training in program delivery for a substantial number of professionals. The evaluation found that ongoing funding support for widespread implementation of these and other evidence-based programs, as well as further evaluation, is required if positive outcomes at the population level are to be realised (Mitchell, 2000a).

### **Antenatal and infancy**

Positive outcomes have been demonstrated in well-controlled studies of home visitation as a selective intervention strategy. Future investment might encourage application and evaluation of its impact within disadvantaged Australian populations especially in families involved in substance misuse where evidence for successful implementation and impacts is limited. Home visiting is an integral component of a number of family support strategies being offered by government and non-government agencies, but because they have not been faithful to original models, their effectiveness in the Australian context (in terms of improving the outcomes documented by Olds *et al*) is unproven.

The effectiveness of extended home visitation as a means of engaging substance abusing parents in strategies that will assist their own self-development as well as improving the quality of the attachment relationship between parents and infants

needs to be further investigated. Only one evaluation has addressed issues such as ability to engage these clients, or the impact of home visitation on substance use.

A range of Australian intervention programs focus on points of particular risk to infants and children. These programs target child neglect and abuse through programs including mandatory reporting and intervention orders. Despite their widespread utilisation, current evaluation investment extends only to evidence for implementation, hence further research is needed.

### **Preschool years**

Universally targeted behavioural family interventions have significant impacts on important substance abuse risk factors. Investment is required to document the long-term outcome of these programs on youth substance abuse. Evaluation of various dissemination strategies appears warranted. Investment to encourage Australian dissemination of selective programs such as the Perry Pre-School program is also appropriate.

Innovation funding appears warranted to encourage Australian program development targeting families of parents in drug treatment and correctional settings.

### **School years**

There is evidence of positive outcomes for parent education targeting childhood behaviour problems within primary school settings. Investment is warranted to examine strategies for wider dissemination. There are promising indications of outcomes through parent education delivered through the high school years, hence Australian dissemination investment is indicated. Promising impacts for the Australian PACE program suggests an investigation of outcomes for this strategy would be worthwhile.

Impacts on relevant risk factors and some substance use behaviours can be achieved through selective intervention in primary and high school age groups. Opportunities for dissemination include schools and a range of other welfare settings and family courts. Investment to ensure positive outcomes in Australian populations appears warranted.

**Table 3.1: Matrix of prevention and early intervention programs targeting illicit drug use, involving families**

	Infancy	Preschool	Primary school	High school
<b>Universal</b>	Professional home visiting	Preschool and child care; parenting education	Parent education eg Triple P (Positive Parenting Program); PDFY (Preparing for the Drug Free Years)	Preventing initiation of drug use eg Social Marketing ; ISFP; ATP (Family Resources Room); PACE (Parenting Adolescents: a Creative Experience)
<b>Selective</b>	Professional home visiting; Promoting attachment	Behavioural family training	Triple P; Strengthening Families Program (SFP); Families And Schools Together (FAST)	Coping Power Program; Strengthening Families Program (SFP); FAST; Home visiting; ATP (Family check up using motivational interviewing); RAP (Resourceful Adolescent Program)
<b>Indicated</b>	Treatment and support for substance abusing parents	Behavioural family training	Helping the non-compliant child	ATP (Menu including Family Management curriculum); Functional Family Therapy; Multisystemic Therapy; Brief strategic-structural family therapy.

## 4. FAMILIES AND TREATMENT OF DRUG PROBLEMS

### INTRODUCTION

This chapter reviews the research literature that considers the role of families in the treatment of drug problems. Research has concentrated on two main roles or domains of activity: the role of the family in identifying individuals in need of treatment and facilitating their entry to treatment; and involvement of the family in the treatment process. A small amount of research has also examined the family factors that mediate treatment outcomes. This review also considers, separately, the literature on young people and family interventions.

Almost all of the available research on family involvement in treatment of drug problems has been conducted overseas. Some recent Australian work has examined the extent to which family members are seeking treatment for drug problems.

### AUSTRALIAN DATA ON FAMILIES AND TREATMENT-SEEKING FOR DRUG PROBLEMS

There are currently no data sets that directly address the issue of service utilisation by families of those experiencing substance use disorders. The most relevant collection, the Australian National Minimum Data Set on Clients of Alcohol and Other Drug Treatment Services (NMDS-AODTS) only began collection in July 2000, so data will not be available for at least another year on a national level. The two most recent one-day censuses of clients of treatment services agencies were conducted in 1992 (Chen, Mattick & Baillie, 1992), and 1995 (Torres, Mattick, Chen & Baillie, 1995). These reported on 5,730 and 5,212 clients respectively. In 1992 and 1995 respectively 7.8 per cent and 8.3 per cent of the service consumers on the census day were seeking assistance with the substance use problems of relatives and friends.

The only other data set that addressed this issue was the national pilot study of (NMDS-AODTS) which included 1,395 clients over a six week period in a cross-section of treatment types (Conroy & Copeland, 1998). It was found that 4.8 per cent of clients were seeking assistance for a relative or friend's substance use problem. This rate is artificially constrained as it included an over-representation of residential treatment services.

While this may appear a small proportion of the total clients, it highlights that even though agencies rarely target families of those with substance use problems, they constitute a significant proportion of the clients accessing services. Unfortunately these data, like the COTSA (Clients of Treatment Service Agencies) surveys in general, give no insight into type or level of service—let alone outcome—that families receive from treatment services in Australia. This would be remedied by the inclusion of relevant modules in the NMDS-AODTS in the future.

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## IDENTIFICATION AND FACILITATION INTO TREATMENT

Only a small proportion of those experiencing substance use disorders seek formal treatment. It is probable that more people would seek treatment if it were perceived as available, accessible and appropriate. A number of strategies have been developed for working with concerned family members or others to facilitate his or her entry into treatment (Garrett, Landau-Stanton, Stanton *et al.*, 1997). Little of this work has a specific focus on young people.

Historically the best known is the 'intervention' method developed by the Johnson Institute (Johnson, 1980). This involves gathering as many people as possible to confront the person with the consequences of their not entering treatment immediately. Despite its widespread use in the United States there is very little research on its effectiveness and the extant studies have been based on small numbers and report differing results (Liepman, Nirenberg & Begin, 1989; Logan, 1983).

More recently Johnson's 'intervention method' has been assessed as a method of referral to outpatient treatment. It was found that those who underwent the Johnson intervention were more likely to be recruited into outpatient treatment than those not undergoing a form of coercion (Loneck, Garrett & Banks, 1996a). However a similar study by the same group of researchers found that those participating in a Johnson intervention were more likely to relapse and hence to not complete treatment than those in less coercive recruitments methods (Loneck, Garrett & Banks, 1996b).

Similarly Berenson's approach, which was developed to work with the most motivated family members to facilitate entry to treatment and Alcoholics Anonymous, has not been manualised or appropriately researched (Berenson, 1976).

An approach that is related to the community reinforcement approach (CRA) of Azrin and colleagues (Azrin, 1976), is community reinforcement training. This largely involves someone being available at all times to provide crisis counselling for family members. Once again there is minimal evidence of its effectiveness, although a treatment manual is available (Meyers, Dominguez & Smith, 1996). Unilateral family therapy developed by Thomas and associates (Thomas & Ager, 1993), combines the CRA and Johnson's 'intervention'. It involves the therapist meeting with the spouse over a number of month, and by the fifth month, an open attempt is made to engage the alcohol dependent person into treatment. The only study reported that 39 per cent of drinkers in the treatment group compared with 11 per cent in the delayed treatment condition entered treatment by the six month after initial contact with the spouse (Thomas, Santa, Bronson & Oyserman, 1987).

A further approach developed in England by Yates (Yates, 1988), is known as co-operative counselling. This involved a media campaign to induce families to come to a treatment centre for coaching in engaging the alcohol dependent person into treatment. In the small study, 47 per cent of the 19 people whose families came in for coaching either entered treatment or improved without treatment.

More recently, Garrett and colleagues (Garrett *et al.*, 1997), reported on the effectiveness of the Albany-Rochester Interventional Sequence for Engagement (ARISE), a three-stage graduated continuum of strategies derived from family and systems theory. Their first stage involves telephone coaching with the concerned person, where the therapeutic intention is to turn the caller's concern into motivation and skill to intervene. Thereafter, a social network meeting is organised that is similar to the Johnston 'Intervention' model. Garrett *et al.* report that the method compares favourably with forms of legal or employer coercion and client self-referral in engaging reluctant clients into treatment.

A number of related models have been specifically designed for ambivalent adolescents whether living at home or not. The best known is strategic structural systems engagement. This was developed by Szapocznik and colleagues (Szapocznik, Perez-Vidal, Brickman *et al.*, 1988), primarily for Hispanic youth. It is delivered by telephone to a family member of adolescent substance abusers. These researchers reported that 93 per cent of targeted adolescents agreed to come in to a clinic with their families for an intake meeting compared with 42 per cent in the 'usual' condition.

Waldron, Meyers and Slesnik (1999) have extended Meyers and Smith's (Meyers & Smith, 1997) Community Reinforcement and Family Therapy (CRAFT) intervention to adolescents and this is also showing promising results. Slesnik, Meyers, Mease and Segelken (2000) have described a similar intervention for families with runaway youth, although no outcome data are available.

An Australian trial combining family engagement into treatment and a brief intervention for young people with cannabis use problems is soon to be conducted at the National Drug and Alcohol Research Centre (NDARC) by Copeland, Swift and colleagues, funded by the Commonwealth Department of Health and Aged Care.

The data from these various approaches converge to offer promise for reaching families and facilitating entry to treatment through interventions with one or more family members, friends, or other social network members.

## FAMILY FACTORS AS MEDIATORS OF OUTCOME IN ALCOHOL AND OTHER DRUG TREATMENT

Aspects of an individual's family circumstances have been found to influence the outcome of substance use disorder treatment. In their review of controlled studies of treatment outcome, Miller and Hester (1986) concluded that involving family (described as collaterals) in treatment, increases the level of improvement observed at short-term follow-up.

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## **Women**

Studies have shown that women have special concerns leaving their families, particularly children, in order to access residential treatment. Copeland and Hall (1992) found that women with dependent children were more than twice as likely to drop-out of treatment from a service that required them to be separated from their children than a specialist women's service that provided residential childcare and parenting programs. Szuster, Rich, Chung and Bisconer (1996) reported a similar finding in Hawaii in terms of retention rates and length of time in treatment.

A Japanese study also reported that the inclusion of a family-involved group for women in alcohol dependence treatment had significantly higher abstinence rates than did women not attending such a group (Nakamura & Takano, 1991).

## **Adolescents**

Latimer, Winters, Stinchfield and Traver (2000), reported that levels of substance use among siblings at pre-treatment (and the young person's participation in after-care) predicted adolescent clients' alcohol and marijuana use during the first six months after treatment but not at 12 months.

A study of adolescent drug using clients and their mothers, in six drug-free outpatient programs in the United States, further reported that the more positively a family's functioning and relationships were described by the client at pre-treatment, the more client improvement was reported by the client and the mother at 15 months follow-up (Friedman, Terras & Kreisher, 1995). In their review, Catalano, Hawkins, Wells *et al.*, (1990-91), found that family support was an important factor modifying the effectiveness of youth substance abuse treatment.

## **FAMILY THERAPY AND SUBSTANCE USE TREATMENT**

Family therapy has focused on some important clinical problems over the last four decades, including schizophrenia, sexual and physical abuse, delinquency, and conduct disorder. A meta-analysis of 19 studies of the effectiveness of family therapy by Markus, Lange and Pettigrew (1990) concluded that at post-treatment the average client in family therapy is better off than 76 per cent of the patients with an alternative treatment, a minimal treatment or no treatment. They further concluded that the effect of family therapy in general increases during the first year after treatment but that the effect may diminish sharply after 18 months from the end of treatment.

Since the 1970s many alcohol and other drug treatment services have worked with family members in interventions variously labelled as family-based, family-centred, or simply family therapy. These interventions emphasise work at the level of family change, including parenting practices, family environment and problem solving, and also take into account the psychosocial environment of the client.

The distinctions among the various types of family therapy are not unimportant. Winters has observed that family therapy is frequently used as a 'catch all' name for any activity that brings family members together, and may have no theoretical underpinning or appropriate staff training (Winters, 1999). Some family-focused interventions assume that information about the 12-step philosophy delivered in the context of family treatment is sufficient to affect substance use by the client. Other approaches assume that the interaction within the family and between important family members and others outside the family is critical to the change process (Winters, 1999).

Application of family therapy to the substance use field was marked by a pioneering study known as 'The Addicts and Families Project' reported by Stanton *et al* in the late 1970s (Stanton, Todd & Associates, 1992). This project developed and tested an integrative family therapy approach in collaboration with two pioneers of family therapy, Minuchin and Haley. This study is one of the few with heroin dependent clients and reported that two thirds of the cases involved in family therapy experienced what was considered a good outcome.

In assessing the efficacy of family-based interventions, 'behavioural family therapy' receives the most attention from researchers while 'family systems therapy' is popular among practitioners (Lipps, 1999). Qualitative descriptions of the role of the family in the change process, particularly in the alcohol field may be found in McCrady (1986) and Orford (1984), with the latter also considering cultural aspects. Descriptions of some techniques of marital and family therapies may be found in O'Farrell and Cowles (1989) and Kaufman (1986).

Reviewers of the literature on family therapy have reached different conclusions regarding its effectiveness. Miller and Hester (1986), in their review of controlled studies, argued that the addition of marital or family therapy to the treatment of alcohol dependence increases the level of improvement observed at short-term but not long-term follow-up. McCrady (1989) has also claimed that the family's involvement in alcohol treatment has a positive effect on drinking behaviour.

Mattick & Jarvis (1993) concluded that the impact of marital therapy on alcohol consumption is better than no treatment at all and that behavioural family therapy has produced better results than interactional couples group therapy. Although some studies have reported substantial differences between treatment and control groups (Bowers & Al-Redha, 1990; McCrady, Moreau, Paolino & Longabaugh, 1982), the majority of results and the average effect-sizes over all follow-ups, indicate that in the context of alcohol treatment, marital or family therapy has little additional impact on post-treatment drinking behaviour (Mattick & Jarvis, 1993).

A later meta-analysis of family therapies for alcohol use disorders was conducted by Edwards and Steinglass (1995). It examined three aspects of treatment: treatment initiation; primary treatment; and after care. They concluded there was strong support for the role of family therapy interventions to motivate alcohol dependent

people into treatment. There were few studies in the second phase of the project and the designs were not rigorous. They found no actual support for the family systems approach despite their stated conclusions. The third phase had even fewer studies (n=2) and was unable to make any meaningful conclusions.

More recent research on behavioural marital therapy (Baucom, Mueser, Daiuto & Stickle, 1998) includes the use of partner-assistance in maintaining disulfiram dosing as well as motivational pre-sessions. This may confound the effects of behavioural therapy alone. Similar confounding of the effects of family therapy are found within complex multi-therapies such as CRA.

## YOUNG PEOPLE AND FAMILY INTERVENTIONS FOR DRUG PROBLEMS

Much of the research into family intervention has focused on the context of a family member presenting with concern about another's substance use. Less work has been directed to the problem of engaging families of individuals who present for treatment. As a young person may still be living with or deeply involved in their immediate family it is especially relevant that they be engaged in the intervention process.

While a number of techniques have been described for using the family to engage a young person in treatment, Weidman (1985; 1987) and Santisteban and Szapocznik (1994) describe how to engage the family of the young person into treatment. They emphasise the importance of involving the family in the treatment process, however no supportive data is provided.

There exists considerable diversity in the family intervention strategies addressing youth substance abuse. In the family therapy work of both Liddle and Dakof (1995), and Alexander, Holtzworth-Munroe and Jameson (1994), a major emphasis has been placed on the reframing of negative family stereotypes. Henggeler, Bourdin, Melton *et al.*, (1991) attempted to extend family systems principles by addressing risk factors outside the family including peer relationships and work, education and community resources. The work of Azrin, Donohue, Besalel *et al.*, (1994) also supports the importance of modifying social contingencies.

Beyond engagement, there is some empirical support for family-based treatment of adolescent substance use problems. The efficacy of certain types of family-based approaches in the treatment of delinquency and conduct disorder has been established (Liddle & Dakof, 1995). In the late 1980s clinical research programs began investigating the effectiveness of family based approaches for treating adolescent drug use. They reported that 12 sessions of family-based approaches (conjoint family therapy and one-person family therapy) significantly reduced adolescent drug use and behaviour problems and improved family functioning in Hispanic families with drug-using adolescents (Szapocznik, Kurtines, Foote *et al.*, 1983; Szapocznik, Kurtines, Foote *et al.* 1986). Unfortunately, these studies suffer

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from a variety of methodological limitations, most particularly small sample sizes and lack of a control group.

Some randomised studies, however, have demonstrated the superiority of family-based approaches in retaining adolescents in drug treatment and in reducing drug use (Azrin *et al.*, 1994; Henggeler *et al.*, 1991). Research also supports the utility of parent education and skill-building groups (Joanning, Quinn, Thomas & Mullen, 1992; Lewis, Piercy, Sprenkle & Trepper, 1990; Liddle & Dakof, 1995), and peer group therapy (Liddle & Dakof, 1995; Joanning *et al.*, 1992). Data support the link between changes in the central aspects of family functioning and changes in substance-using and problem behaviours of the adolescent (Schmidt, Liddle & Dakof, 1996). Azrin *et al.*'s (1994) program encouraged parents to alter the behavioural rewards provided to youth. Azrin trained parents to reward those behaviours that reduced substance abuse risk and to reduce rewards for behaviours that increased risk. Exposure to this program was associated with a significant reduction in youth drug use.

A series of studies including randomised controlled trials has demonstrated the effectiveness of Multi-Systemic Therapy (MST) in engaging young substance abusers and juvenile offenders in treatment and enhancing treatment outcomes (Henggeler, Melton & Smith, 1992; Santos, Henggeler, Burns *et al.*, 1995). MST is grounded on a social-ecological model of developmental psychology. It intervenes in a variety of systems and processes known to be related to the psychosocial problems of the adolescent including family, peer groups, educational and vocational settings, as well as the individual (Henggeler *et al.*, 1992; Santos *et al.*, 1995). MST places strong emphasis on self-determination, with the young person (and their family) setting the goals and objectives that they wish to achieve. MST has also been found to be effective in engaging families with multiple complex problems (Cunningham & Henggeler, 1999).

Although not strictly directed at substance abuse, Alexander and colleagues developed Functional Family Therapy (FFT) specifically to target needs within juvenile justice populations. Youth in juvenile justice settings have high levels of substance abuse and many of the risk factors for youth substance abuse are shared. For this reason family intervention within juvenile justice populations has important implications for the treatment of youth substance abuse. Functional Family Therapy (FFT) provides an example of a readily taught family counselling program involving as little as eight hours of therapist contact and provided good evidence for beneficial reductions in juvenile justice expenditure. Alexander, Holtzworth-Munroe and Jameson (1994), review the evidence for FFT. In brief the program has demonstrated evidence as a strategy for reducing re-offending and substance use amongst voluntary and court-mandated adolescent offenders. The program has also been demonstrated to prevent offending amongst the younger siblings of targeted offenders.

In practice, those working with young people should be aware of the complex of behaviours and systemic interactions associated with recovering from a substance use



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disorder. They should also be aware of cultural differences in family styles and typical attitudes towards therapy (McGoldrick, Pearce & Giordano, 1982). Treatment should be considered within the context of other problem behaviours such as delinquency and school problems, necessitating new frameworks of diagnosis and assessment, as well as treatment. Liddle and Dakof (1995) wrote that familial attitudes and behaviour, family emotional environment, and parenting practices are dimensions consistently targeted by family-based interventions - where such interventions exist.

Although harmful alcohol and drug use exacts a heavy health and social toll, few engaging in these behaviours seek formal assistance. Providing advice and assistance to family members impacted by another's substance abuse appears to be a practical strategy for increasing treatment involvement.

#### FUTURE DIRECTIONS FOR RESEARCH ON FAMILIES AND TREATMENT

Although harmful alcohol and drug use exacts a heavy health and social toll, few engaging in these behaviours seek formal assistance. Providing advice and assistance to family members impacted by another's substance abuse appears to be a practical strategy for increasing treatment involvement. Many of the relevant evaluations have been conducted overseas. Trials of such strategies in Australian primary care settings (such as general practice, family welfare, generalist counselling services) would be valuable. The existing research is not extensive, yet manualised interventions do exist. This situation provides an opportunity for investment in randomised controlled trials.

Australia has a reputation for innovative approaches to family therapy, yet there have been few well-controlled evaluations. Investment is warranted to enable strategies such as narrative family therapy to be evaluated.

Despite the identification of the Functional Family Therapy approach and Henggeler's Multi-Systemic Therapy as among the more effective strategies for working with targeted youth populations, Australian practitioners have had little exposure to these strategies. Pilot studies of these approaches in Australian service settings including training and capacity building appears warranted.

## 5. ISSUES FOR RESEARCH IN SERVICE AND POLICY DEVELOPMENT

### INTRODUCTION

The original aim of this chapter was to provide an overview of research literature examining the capacity of Australian service systems to effectively implement family-focused prevention and treatment programs, as well as research examining how policies of Australian governments may impact on family-based factors related to illicit drug use. Issues surrounding the involvement of families, communities and service users as partners in policy and service development are central.

The review found very little research literature examining the capacity of Australian service systems to implement family-focused programs targeting illicit drug use. There is also little research that has examined the impacts of government policies on patterns of illicit drug use in Australia. While there is a growing body of literature on the subject of family involvement in policy and service development, very little of this literature is based on research. It is important that research be conducted in these areas.

This chapter provides a brief overview of the little research literature that is available, as well as other non-research literature that provides guidance about possible directions for research. Topics covered include:

- national policy on drugs and families;
- current approaches to working with families (including parents' needs and views);
- capacity of the service system to involve families; and
- future directions for service and policy development research.

### NATIONAL POLICY ON DRUGS AND FAMILIES

The family has not been a major focus of drug policy in Australia to date. It is only recently, with the latest National Drug Strategic Framework 1998-99 to 2002-03 (Intergovernmental Committee on Drugs and the Australian National Council on Drugs, 1998), that the family has received significant recognition as an important site for intervention. Here the family has been identified explicitly in one of 12 strategic objectives, as a site for the reduction of drug related harm. The importance of the family is also recognised under other objectives such as 'to prevent the uptake of harmful drug use'. The National Drug Strategic Framework also identifies families as key targets for the enhancement of partnerships between government and affected communities and seeks to enhance families' and communities' ability to respond to drug related harm. A National Action Plan on Illicit Drugs (NAPID) has been under development and is due for release shortly.

The family has also featured more or less strongly in several other major recent national policy initiatives that deal with social problems related to illicit drug use. These include strategies aimed at:

- preventing homelessness (Prime Ministerial Youth Homelessness Taskforce, 1998);
- mental health problems (Commonwealth Department of Health and Aged Care, 2000(d)); and
- suicide (Mitchell, 2000b; Commonwealth Department of Health and Aged Care, 2000(c)).

Aspects of these policy initiatives are discussed further below.

## CURRENT APPROACHES TO WORKING WITH FAMILIES

Available Australian literature discussing issues surrounding family involvement in illicit drug use programs and services focuses on four main approaches to working with families:

- drug education and support for parents (Kimpton & Shaw, 1999; Mundy, 1996; Mallick, Evans & Stein, 1998; Rogers & McCarthy, 1999; Mudaly, 1997; Ethnic Youth Issues Network, 1998; Toumbourou, Blythe, Bamberg *et al.*, 1997);
- family involvement in treatment (Success Works Pty Ltd., 1998; Victorian Government Department of Human Services, 2000);
- support for parents misusing substances (Hunt, Hawkins & Goodlet, 1992; Hodge, 1996); and
- self help and political activism (McKey, 1997; McKey & Trimmingham, 1999).

### **Drug education for parents**

How to ensure that parents have access to all the information they need about illicit drugs and adolescents' use of illicit drugs has been the major focus of discussion in the literature about family involvement, as well as a focus of programs designed to address the perceived needs of parents.

Recent international (Mallick *et al.*, 1998; Rogers & McCarthy, 1999), and Australian research (Mudaly, 1997; Ethnic Youth Issues Network, 1998; Hunt *et al.*, 1992), has consistently found that the majority of parents are very concerned about drugs and their children, and that they see themselves as having an important role to play, alongside schools, in educating their children about drugs. The majority also feel that their knowledge is not sufficient and that they need more drug education for themselves in order to assist their children (Mallick *et al.*, 1998; Rogers & McCarthy, 1999; Mudaly, 1997), however they have difficulty in gaining access to the information needed. This is particularly the case for parents from culturally diverse

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backgrounds, many of whom have very limited understanding of drug issues and face additional barriers to information and professional support due to poor English language skills and cultural factors (Mudaly, 1997; Ethnic Youth Issues Network, 1998). Research conducted in Victoria has found that families of many young people from Indo-Chinese backgrounds face severe family stressors additional to those experienced by the general population. These include exposure to trauma, family disruption and separation, intergenerational conflict, and severe cultural sanctions against drug use. These factors increase the needs of family members for support around substance misuse issues (Ethnic Youth Issues Network, 1998).

Professional commentators in Australia have also identified the need for more parent education about drugs, including education aimed at boosting parents' confidence, and education about their own drug use (Mundy, 1996). British research (Mallick *et al.*, 1998; Rogers & McCarthy, 1999) and Australian commentators (Mundy, 1996; Mudaly, 1997), have also identified the need of parents for more information about the drug education provided to their children by schools. Despite the expressed needs of parents for drug education, problems of poor attendance at sessions provided have been identified in the literature (Rogers & McCarthy, 1999). There are indications that parents are more willing to attend drug education after substance misuse problems have developed (Toumbourou *et al.*, 1997; Hunt *et al.*, 1992). There has been little outcome evaluation of drug education programs for parents in terms of effects on children's drug use problems.

Provision of drug education for parents has been prioritised in recent expansions of state drug strategies, and schools are a major setting for parenting education programs (Kimpton & Shaw, 1999; Mudaly, 1997). Schools have been identified as a particularly appropriate venue for delivery of such education to parents from Indo-Chinese backgrounds due to the high levels of regard in which schools are held (Mudaly, 1997; Ethnic Youth Issues Network, 1998).

Social marketing campaigns have been implemented by the Commonwealth and state governments in Australia aimed at encouraging and assisting parents to communicate with adolescents about alcohol and drug use. Despite extensive investment little is currently known regarding the impact or outcomes of these programs.

### **Family involvement in treatment**

Family involvement in treatment of substance misuse problems has been a major focus of the international research that has examined families and illicit drug use (see Chapter 4 of this review). However there has been little research into the capacity of services to involve families in treatment programs.

Recently a series of service development research projects has been conducted by the Victorian Department of Human Services as part of a major service review and reform process under the 'Turning the Tide' Strategy. These began with a needs analysis on young people and drugs published in 1998 which included consultation

with families and carers of young people using drug treatment services (Success Works Pty Ltd., 1998). This was followed by more rigorous research into the views and needs of family members of persons using drug treatment services (Victorian Government Department of Human Services, 2000). Consultations were held with 97 young people and family members through questionnaires, surveys and discussions with self-help groups. The staff of 45 community health and drug and alcohol services were interviewed regarding their current practices. Another study focusing on best practice drug and alcohol treatment service and support models for young people of Cambodian, Lao and Vietnamese origin also included consultation with parents and family members (Ethnic Youth Issues Network, 1998).

A major finding of this Victorian research was that many families felt alienated and unsupported by health professionals and drug treatment services. The main types of support sought by families included information/education, advice/guidance, counselling and support groups. The vast majority of families wanted to provide support to their family member who was using treatment services, and viewed this involvement as a crucial part of the user's treatment. Families wanted to be able to provide emotional support and encouragement, help with accessing quality services and help to improve community attitudes. They acknowledged that they needed to acquire a deeper understanding of drug and alcohol issues in order to provide appropriate support. Focus groups with young people using treatment services indicated that they also wanted the support of their family in one way or another.

### **Supporting parents who are misusing substances**

Research and commentary on family involvement in illicit drug use interventions has tended to focus on the non-using family members (parents and siblings) of young people who are misusing illicit drugs. This review found no Australian research on issues for families where parents are misusing substances, however there has been some discussion in the clinical literature.

Hodge (1996) discusses issues facing parents who are misusing substances and observes that intervention has focused too narrowly on legalistic approaches to child protection and trying to enforce abstinence from drug use by parents. She argues that this focus can discourage parents from disclosing the true extent of substance misuse problems and family difficulties to professionals and from seeking and engaging with assistance. Hodge recommends a holistic harm minimisation approach involving provision of a range of support services aimed at helping parents and families reach self defined goals. There is a lack of research into the aspirations of such families, their experience interacting with services, and the capacity of services to address their needs. Hodge observes that collaboration between Alcohol and Other Drug Services, Child Protection Services and Family Support Services is essential but problematic due to divergent philosophies.

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## **Self help and political activism**

Commentators have noted the increasing influence of parent groups in the drug policy arena in Australia. McKey (1997) and McKey and Trimmingham (1999) have observed that parent groups have grown in numbers and strength over recent years. Parents' groups are highly diverse in their views, ranging from strong support for tough anti-drug laws through to advocacy for law reform and support for new approaches to treatment, harm minimisation and prevention.

The increasing strength and diversity of parents' groups have been observed as contributing to increased readiness of politicians, the media and other stakeholders to consider new approaches to addressing the illicit drug problem. However the views of parent lobby groups and those of researchers and professionals in the field of illicit drug use are not always consistent. While the potential of parents' groups to contribute to improved policy and program approaches is increasingly being recognised, making optimal use of this resource will require more systematic research into the views, needs, skills and capacities of parents' groups, as well as critical reflection upon the availability of opportunities for development of partnerships between parents' groups, services and government policy makers. Research should also evaluate strategies aimed at ensuring that community pressure groups are adequately informed about the evidence base. Such research is very poorly advanced in the area of illicit drug use compared to other health problems, including mental health.

## **CAPACITY OF THE SERVICE SYSTEM TO INVOLVE FAMILIES**

The three studies commissioned by the Victorian Department of Human Services in the late 1990s (Ethnic Youth Issues Network, 1998; Success Works Pty Ltd., 1998; Victorian Government Department of Human Services, 2000), represent the only systematic Australian research into the capacity of the drug treatment service system to involve families. These focused on issues for families of young people using treatment services.

There is evidence that family involvement in treatment is increasing in Victoria. While the first study (Success Works Pty Ltd., 1998), conducted in 1996-97 found that there had been almost no engagement of parents/carers in the development of treatment options, all of the 45 services involved in the second study reported involving family members to some extent (Victorian Government Department of Human Services, 2000). The proportion of clients with family/carer involvement ranged from ten to 100 per cent. This involvement mainly took the form of one-to-one counselling and provision of information and advice separately from the young person. Fifteen of the 45 services provided a specific program to support families.

Involvement of family members in the treatment process was found to be dependent on a complex array of variables operating within the service system and within

families. Key factors for services include the predominance of an individual client focused model of service and concerns about confidentiality and duty of care. Factors within families include diversity, family dynamics and conflict, and the broader social and legal context of the family.

Several key areas were identified where work is required to build the capacity of the service system to successfully involve families in the treatment of illicit drug use problems of young people. These include:

- resources and appropriate funding models;
- training for worker;
- development of inter-agency linkages and protocols;
- development of culturally sensitive treatment models and ways of involving family members;
- recruitment of appropriately trained bilingual/bicultural staff in areas with high density of particular ethnic groups; and
- education and information targeting community attitudes.

Development of strategies for involving families in prevention (as opposed to treatment) of drug problems is also an important issue for service development. Service system capacity in this area has been observed to be underdeveloped and this has been attributed in part to the overall inadequacy of adolescent prevention and treatment capacity (Toumbourou *et al.*, 1997). No systematic Australian research has been conducted on this topic, however, some relevant research has been conducted in the United Kingdom.

Velleman, Mistral & Sanderling (2000) conducted a piece of evaluation research for the United Kingdom Government's Drugs Prevention Advisory Service, exploring issues surrounding the engagement of parents in drug prevention activities. They observe that despite increasing recognition of the need to involve parents in prevention activities, serious difficulties have been experienced in recruiting and retaining families. This is particularly true for families facing experiences that have been associated with increased risk, including divorce, unemployment and social isolation. Based on the results of evaluation of a variety of primary prevention and education projects Velleman *et al* emphasise the importance of conducting local needs assessment involving collaboration between parents and local agencies, and the importance of drawing on school and community networks in order to recruit parents. It was also found that additional strategies may be needed to recruit less educated and more marginalised parents, such as those from minority ethnic groups. Courses with a focus wider than simply 'drugs' were also found to facilitate parental involvement.

Velleman *et al* (2000) make a number of recommendations for facilitating implementation of effective strategies for involving families. These tend to be based

on the assumption that a variety of local agencies will work together in accordance with broader policy frameworks currently operating in the United Kingdom which specify the formation of 'Drug Action Teams' and 'Health and Education Action Zones' which are designed to enhance a local population based planning approach to service development.

In Australia there are currently several major new state government policy initiatives that are focused on enhancing collaboration between agencies that could play a role in supporting the involvement of families in prevention of drug use problems. These include the Primary Care Partnership Strategy in Victoria (Victorian Government Department of Human Services, 2000), and the Families First Strategy in New South Wales (New South Wales Cabinet Office, 1999).

## FUTURE DIRECTIONS FOR RESEARCH ON FAMILIES AND TREATMENT

This review was unable to locate any research into the capacity of the Australian service system to implement prevention and early intervention activities targeting families and illicit drug use problems, or involving families as partners in program development.

There has, however, been research into the capacity of service systems to implement prevention and early intervention, targeting and involving families. These address other problems closely related to illicit drug use including crime (National Crime Prevention, 1999), homelessness (Prime Ministerial Youth Homelessness Taskforce, 1998), and youth suicide (Mitchell, 2000b). This service development research has taken place as a part of comprehensive policy reform processes in these fields.

Commonwealth Government policy initiatives in these fields place strong emphasis on prevention and early intervention as well as treatment and intensive support, and the family has been identified as a key domain for prevention and early intervention.

Furthermore, the family based risk and protective factors identified in policy documents and service development research reports in these fields correspond to those identified in the present review of the aetiology of illicit drug use problems (see Chapter 1 of this review).

Although the various policy frameworks are at different stages of development and sophistication in relation to articulation of strategies, there is also strong correspondence in the types of interventions being endorsed and supported by different Commonwealth Departments. Specifically, there is an emphasis on primary prevention aimed at developing positive parenting skills and optimal family functioning, and early intervention targeting families at high risk (with high risk being characterised by familial exposure to multiple adverse experiences such as socioeconomic disadvantage, parental mental health problems including substance misuse, conflict and family breakdown). These policy frameworks also reveal increasing commitment to universal interventions targeting social and community

factors such as the quality of neighbourhood environments where children and families live, and the development of family friendly workplace policies and practices. Intersectoral collaboration and the development of partnerships with service users, families, carers and communities is another key theme centrally embedded in these policy frameworks. The need for governments to support initiatives that are planned, developed and implemented at the local level is being increasingly recognised.

As with service development research, policy development and policy research in the area of families and illicit drug use lags behind that in related fields. One piece of relevant research is a recent literature review of the structural determinants of youth drug use prepared for the Australian National Council on Drugs (Spooner, Hall & Lynskey, 2001). Key findings of this review are that illicit drug use problems among young people need to be understood in the context of increased rates of other problem behaviours among youth. There is a strong body of evidence that these problems are linked to negative changes in the economic, social/cultural and physical environment affecting young people and families. Spooner *et al* (2001) recommend that policy development in the drug use area focus on addressing the structural factors that affect a range of outcomes. They observe that a whole of government approach is required and endorse the approach of Keating<sup>3</sup> who has argued for major investment in the developmental health of the population. Spooner *et al* also recommend that all government authorities including local, state, and Commonwealth government departments need to produce health impact statements for all new policy and program initiatives.

In conclusion there are three major considerations that need to be taken into account in determining broad directions for future service development and policy research focused on working with families on illicit drug use issues:

- the relative lack of research examining family involvement in primary prevention and early intervention programs focusing on illicit drug use problems;
- convergences in Australian policy approaches to primary prevention and early intervention targeting a range of health and wellbeing outcomes related to illicit drug use; and
- evidence demonstrating the critical importance of intersectoral collaboration to address structural and interacting social factors and localised approaches to planning and service development.

Research into approaches that address structural factors, such as poverty and marginalisation, affecting families' ability to nurture their children appears to be of major importance. While addressing structural social factors implies the need for research at the macro-environmental system level this does not discount the importance of research focused on localised issues. Indeed localised research would appear to be critical to the goal of facilitating the involvement of families in service and policy development, and of ensuring that research is sensitive to the diversity of



Australian communities. Because the capacity of service systems to implement family focused interventions and to involve families is likely to vary dramatically between areas, localised research would also appear to be the most useful, and perhaps the only feasible approach to researching the design of service development strategies.

The policy and program environment in Australia currently offers some promising opportunities to pursue research consistent with these directions. As noted above, there are currently several major new state government service development initiatives established with the aim of enhancing collaboration between agencies that could play a role in supporting the involvement of families in prevention of drug use problems as well as a range of related outcomes. These include the Primary Care Partnership Strategy in Victoria (Victorian Government Department of Human Services, 2000), and the Families First Strategy in New South Wales (New South Wales Cabinet Office, 1999). Another centrally important aim of these initiatives is to enhance the involvement of service users, families, carers and other community members in service and program development initiatives. Central to the strategic approach of these initiatives is creation of networks or partnerships of local agencies, local population based planning, strategic leadership by government and comprehensive evaluation. Approaches incorporating strategic elements such as these have been recommended in recent evaluations of national initiatives in the area of youth suicide prevention (Mitchell, 2000b), crime (National Crime Prevention, 1999), and homelessness (Prime Ministerial Youth Homelessness Taskforce, 1998).

At a Commonwealth level the Stronger Families and Communities Strategy (Department of Family and Community Services, 2000), was initiated in April 2000 by the Commonwealth Department of Family and Community Services. The Stronger Families and Communities Strategy aims to shift the focus of family and community services towards prevention and early intervention while maintaining support for families and communities at greatest risk. A key principle of the Strategy is its emphasis on helping local communities to develop their own solutions to local problems. Thus families and community members will be encouraged to be involved in developing projects funded under the Strategy.

These government initiatives afford invaluable opportunities for conducting service development and policy research into working with families on illicit drug use problems. These initiatives address some of the major generic structural problems within service systems that have been repeatedly identified in service development and policy research on related topics. Therefore, they provide an environment which may allow researchers to more effectively explore remaining generic structural problems that are still poorly understood, as well as to focus more clearly and precisely on issues of specific relevance to families regarding illicit drug use problems.

In addition to these broad considerations there are some specific areas where there appears to currently be a complete lack of published service development research.



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These include:

- approaches to working with Aboriginal and Torres Strait Islander families,
- approaches to supporting parents who are misusing illicit substances, and their families, and
- impact and outcome evaluation of parent education and family support programs and other initiatives aimed at enhancing family involvement.

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## 6. CONCLUSIONS AND FUTURE DIRECTIONS

In this concluding chapter we:

- highlight the key general themes that have emerged from the review which suggest a number of key principles that should guide national directions for future research into families and illicit drug use problems; and
- identify some of the major structural barriers to research consistent with these principles and opportunities for overcoming these barriers.

### KEY THEMES AND PRINCIPLES

There are a number of themes that have emerged from several different areas of research covered in this review. These themes can be used as the basis for key principles to guide the development of a national research agenda.



#### **A developmental perspective**

The aetiological research shows that different risk and protective factors exert differential effects, and interact with each other in different ways depending on the stage of development of the individual. There are many different developmental pathways towards, and away from, illicit drug use problems. Different stages of development provide different opportunities for intervention depending on the salience of particular risk and protective factors at different times. The prevention and early intervention research highlights the benefits of intervening at critical 'transition points' such as development of attachment to parents, school and peers, and initiation of high school. The research also highlights the benefits of intervention early in the pathway and, when risk is high, repeatedly at subsequent stages.

The developmental perspective suggests the importance of research which acknowledges these multiple pathways and opportunities for intervention, and which is aimed at enhancing our understanding of how interventions can be best tailored to different developmental stages and transition points. Longitudinal research which studies the interplay of risk and protective factors, and the impacts of interventions, over multiple developmental stages should be prioritised.

#### **A multidimensional/intersectoral approach**

Family risk and protective factors mediate, and are mediated by, factors operating in other domains of life, particularly the social environment. To be effective, interventions targeting family factors need to be implemented in concert with interventions aimed at creating environments that strengthen family protective factors. Key forces and settings in the social environment affecting children, young people and their families are peers, school, the wider community, employment opportunities, socioeconomic hardship and work stress.



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Family risk and protective factors for illicit drug use problems, and the social factors that interact with these, are common to a number of other negative health and wellbeing outcomes such as antisocial behaviour and crime, some mental health problems and homelessness. At present, research, practice and policy development activities tend to be organised tightly around particular singular outcomes, and these activities are generally planned and implemented by separate sectors such as the drug and alcohol, mental health and family and community sectors. Significant cost effectiveness gains could be made if prevention and early intervention activities directed towards these related health and wellbeing outcomes were better integrated. This would involve coordination of research and interventions targeting common risk and protective factors.

### **Better targeting of illicit drug specific activities**

While commonalities with other problem behaviours and negative health and wellbeing outcomes suggests the need for intersectoral collaboration and a move away from single-outcome-focused approaches, some risk and protective factors (and interventions) are specific to illicit drug use problems. Intersectoral multi-outcome research needs to be balanced with research aimed at illicit drug specific factors and interventions. For example we need to enhance our understanding of how the family can limit progression from experimentation with drugs, to regular use, to misuse, and to substance use disorders.

Again, this consideration points to the importance of a developmental perspective and longitudinal research that considers the interaction of a diverse range of risk and protective factors.

### **Acting on the evidence**

Evidence for the importance of family factors in the development of illicit drug use problems has been available for considerable time, however it appears to have had little impact on policy and practice. If scarce resources are to be invested in research it is important that the evidence generated is used to inform practice. While we know that much of the research has not been utilised, it is difficult to judge the extent to which this is true. There has been little research aimed at understanding the capacity of service systems to learn from research or to implement interventions supported by evidence.

## **STRUCTURAL BARRIERS AND OPPORTUNITIES**

There are a number of structural barriers operating in the current Australian environment which are likely to inhibit implementation of a research program consistent with the principles outlined above. There are also some important opportunities emerging which may allow these barriers to be overcome.

The Commonwealth does not currently have an infrastructure framework capable of supporting investment in intersectoral research programs of adequate scale and

rigour. The research required is long term and requires investment from multiple sectors of government and academia. Current policy frameworks favour small research projects of short duration (usually one to three years) and intersectoral collaboration in funding occurs rarely and opportunistically rather than systematically.


A structural barrier contributing to the slow uptake of research evidence by practitioners and policy makers is the separation between the structures and frameworks guiding research, practice and policy. Research is not adequately linked to governmental program development, rather it takes place in isolation from program development processes.

Frameworks and structures need to be created which are capable of supporting rigorous longitudinal intersectoral research. These frameworks and structures need to include pathways that provide clear linkages to government program development.

There are a number of new developments that suggest a movement towards greater intersectoral collaboration in fields of research relevant to families and illicit drug use.

- The National Public Health Partnership is attempting to encourage the development of structures that can support intersectoral research partnerships <http://hna.ffh.vic.gov.au/nphp/>.
- Academics from a number of sectors have recently agreed to form a National Research Partnership for Developmental Health and Wellbeing.
- Based on the recommendations of the Pathways to Prevention report (National Crime Prevention, 1999), Homel and colleagues are currently beginning implementation of a pilot project called 'Pathways' in a disadvantaged area of Brisbane (Homel, Elias & Hay, 2000). The project involves collaboration between academics from several different departments at Griffith University, Mission Australia, five state government departments and an expert advisory group drawn from Australia and overseas. 'Pathways' is a strategic community-based approach to planning and implementing a coordinated range of prevention and early intervention programs.

Initiatives such as these emerging from within the research community need to be met by appropriate responses among governments. Various approaches could be taken. One approach is to begin with the development of intersectoral programs and build appropriate research and evaluation components into these programs. Thus programs such as 'Families First' in New South Wales and the 'Primary Care Partnership Strategy' in Victoria (see Chapter 6) could be enhanced by building on research arms designed not only to evaluate the outcomes, and inform ongoing development of these programs, but also support a wide variety of research projects. Practice-based research involving collaboration between service providers, consumers, families and academics should be a priority. New government initiatives currently being planned such as the 'National Youth Pathways Action Plan' and 'Best Start' in Victoria should build such research arms into the design of the program from the beginning.



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Another, complementary approach is to develop new intersectoral and/or whole-of-government policy research structures which could commission research aimed at informing the design of intersectoral policy and programs.

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## REFERENCES

### INTRODUCTION

- Commonwealth Department of Health and Aged Care (2000a). *National Action Plan for Promotion, Prevention and Early Intervention for Mental Health 2000*. Canberra: Mental Health and Special Programs Branch.
- Commonwealth Department of Health and Aged Care (2000b). *Promotion, Prevention and Early Intervention for Mental Health—A monograph*. Canberra: Mental Health and Special Programs Branch, Commonwealth Department of Health and Aged Care.
- Mitchell P (2000a). *Primary prevention and early intervention: Evaluation of the National Youth Suicide Prevention Strategy*, Technical Report Volume 2. Melbourne: Australian Institute of Family Studies.
- National Crime Prevention (1999). *Pathways to prevention: Developmental and early intervention approaches to crime in Australia*. Canberra: National Crime Prevention, Attorney General's Department.
- Prime Ministerial Youth Homelessness Taskforce (1998). *Putting Families in the Picture: Early Intervention into Youth Homelessness*. Canberra: AusInfo.

### CHAPTER 1: AETIOLOGY

- American Psychiatric Association (1994). *Diagnostic and statistical manual of mental disorders*. Washington, DC: Author.
- Barnes, G. (1981). Drinking among adolescents: A subcultural phenomenon or a model of adult behaviours. *Adolescence*, 16, 211-229.
- Bauman, A. & Phongsavan, P. (1999). Epidemiology of substance use in adolescence: Prevalence, trends and policy implications. *Drug & Alcohol Dependence*, 55(3), 187-207.
- Bobashev G.V. & Anthony J.C. (1998). Clusters of marijuana use in the United States. *American Journal of Epidemiology*, 148, 1168-74.
- Brady M. (1992). *Heavy metal: The social meaning of petrol sniffing in Australia*. Canberra: Aboriginal Studies Press.
- Brady, M. (1995). *The prevention of drug and alcohol abuse among Aboriginal people: Resilience and vulnerability* (Research Section Occasional Paper No 2/1995). Canberra: Australian Institute of Aboriginal and Torres Strait Islander Studies.
- Brennan J. (1993). Family relationships and the development of social competence in adolescence. *Journal of Paediatric and Child Health*, 29, S37-S41.

- 
- Brook J., Brook D., Gordon A, Whiteman M, Cohen P. (1990a). The psychosocial aetiology of adolescent drug use: A family interactional approach. *Genetic, Social and General Psychology Monographs*, 116, 111-267.
- Brook, J., Brook, D., et al. (1990b). The psychosocial aetiology of adolescent drug use: A family interactional approach. *Genetic, Social and General Psychology Monographs*, 116(2), 111-267.
- Calabrese R, Adams J. (1990). Alienation: A cause for juvenile delinquency. *Adolescence*, 25, 435-440.
- Calabrese R. (1987). Adolescence: A growth period conducive to alienation. *Adolescence*, 22, 929-938.
- Clarke D, Lesnick M, Hegedus A. (1997). Traumas and other adverse life events in adolescents with alcohol abuse and dependence. *Journal of the American Academy of Child and Adolescent Psychiatry*, 36, 1744-1751.
- Climent CE, de Aragon LV, Plutchik R. (1989) Prediction for risk of drug use in high school students. *International Journal of the Addictions* 1989, 24, 1053-1064.
- Crundall I. (1993). Correlates of student substance use. *Drug and Alcohol Review*, 12, 271-276.
- Dansky B, Brady K, Roberts J. (1994). Post-traumatic stress disorder and substance abuse: Empirical findings and clinical issues. *Substance Abuse*, 15, 247-257.
- Degenhardt, L., M. Lynskey, et al. (2000). *Cohort trends in the age of initiation of drug use in Australia* (NDARC Technical Report No.83). Sydney: National Drug and Alcohol Research Centre.
- Deykin EY, Buka SL. (1997). Prevalence and risk factors for posttraumatic stress disorder among chemically dependent adolescents. *American Journal of Psychiatry*, 154, 752-757.
- Dielman T, Butchart A, Shope J, Miller M. (1990-91). Environmental correlates of adolescent substance use and misuse: Implications for prevention programs. *International Journal of the Addictions*, 25, 855-880.
- Dishion T, Patterson G, Stoolmiller M, Skinner M. (1991). Family, school and behavioural antecedents to early adolescent involvement with antisocial peers. *Developmental Psychology*, 27, 172-180.
- Dore M, Doris J, Wright P. (1995). Identifying substance abuse in maltreating families: A child welfare challenge. *Child Abuse and Neglect*, 19, 531-543.
- Dryfoos, J. (1990). *Adolescents at risk. Prevalence and prevention*. Oxford: Oxford University Press.
- DuBois, D., Felner R et al. (1994). Prospective investigation of the effects of socioeconomic disadvantage, life stress, and social support on early adolescent adjustment. *Journal of Abnormal Psychology*, 103(3), 511-522.

- 
- Eckersley, R. (1997). Psychosocial disorders in young people: On the agenda but not on the mend. *Medical Journal of Australia*, 166(8), 423-424.
- Elliott DS, Huizinga D, Ageton SS. (1982). *Explaining delinquency and drug use* (Report No. 21). Boulder: Behavioural Research Institute.
- Ensminger, ME, Juon HS. (1998). Transition to adulthood among high-risk youth. In Jessor, R. Ed. *New perspectives on adolescent risk behaviour*. Cambridge: Cambridge University Press, pp 365-91.
- Fergusson D, Horwood L & Lynskey M. (1994). Parental separation, adolescent psychopathology, and problem behaviours. *Journal of the American Academy of Child and Adolescent Psychiatry*, 33(8), 1122-1133.
- Fergusson D, Horwood L & Lynskey M. (1995) The prevalence and risk factors associated with abusive or hazardous alcohol consumption in 16-year-olds. *Addiction* 1995, 90: 935-46.
- Fergusson DM, Horwood LJ, Lynskey MT. (1997). The effects of unemployment on psychiatric illness during young adulthood. *Psychological Medicine*, 27, 371-381.
- Fleming J, Watson C, McDonald D, Alexander K. (1991) Drug use patterns in Northern Territory Aboriginal communities 1986-1987. *Drug and Alcohol Review*, 10, 367-80.
- Forero R, Bauman A, Chen JXC, Flaherty B. (1999) Substance use and socio-demographic factors among Aboriginal and Torres Strait Islander school students in New South Wales. *Australian and New Zealand Journal of Public Health*, 23, 295-300.
- Glantz, M. D. & Leshner, A. I. (2000). Drug abuse and developmental psychopathology. *Development and Psychopathology*, 12(4), 795-814.
- Gracey, M. (1998). Substance misuse in Aboriginal Australians. *Addiction Biology*, 3(1), 29-46.
- Groves, R. (1993). The lost families: refugees and International Year of the Family. *Development Bulletin*, 29, 8-9.
- Harrison PA, Fulkerson JA, Beebe TJ. (1997). Multiple substance use among adolescent physical and sexual abuse victims. *Child Abuse & Neglect*, 21, 529-539.
- Hawkins J, Catalano R, Miller J. (1992). Risk and protective factors for alcohol and other drug problems in adolescence and early adulthood: Implications for substance abuse prevention. *Psychological Bulletin*, 112, 64-105.
- Hawkins J, Lishner D, Catalano R. (1985). Childhood predictors and the prevention of adolescent substance abuse. In: Jones C, Battjes R, eds. *Aetiology of drug abuse: Implications for prevention* (NIDA Research Monograph No. 56). Rockville: National Institute on Drug Abuse, 75-126.

- 
- Hawkins JD, Arthur MW, Catalano RF. (1995). Preventing substance abuse. In: Tonry M, Farrington DP, eds. *Building a safer society. Strategic approaches to crime prevention*. Chicago: University of Chicago Press, 343-427.
- Hess, L.E. (1995) Changing family patterns in Western Europe: Opportunities and risk factors for adolescent development. In M. Rutter and D.J. Smith (Eds) *Psychosocial disorders in young people: Time trends and their causes*. Chichester: John Wiley and Sons, 104-193.
- Hetherington EM, Stanley-Hagan M. (1999). The adjustment of children with divorced parents: A risk and resiliency perspective. *Journal of Child Psychology And Psychiatry And Allied Disciplines*, 40 (1), 129-140.
- Higgins K, Cooper-Stanbury M, Williams P. (2000). *Statistics on drug use in Australia 1998* (Drug Statistics Series AIHW Catalogue No. PHE 16). Canberra: Australian Institute of Health and Welfare.
- Hoffman J. (1993). Exploring the direct and indirect family effects on adolescent drug use. *Journal of Drug Issues*, 23, 535-557.
- Hoffman JP, Cerbone FG, Su SS. (2000). A growth curve analysis of stress and adolescent drug use. *Substance Use & Misuse*, 35(5), 687-716.
- Huba G, Bentler P. (1980). The role of peer and adult models for drug taking at different stages in adolescence. *Journal of Youth and Adolescence*, 9, 449-465.
- Hussey DL. (1996). Adolescent substance abuse and sexual abuse. *Child and Adolescent Psychiatric Clinics of North America*, 5, 29-43.
- Jenkins JE. (1996). The influence of peer affiliation and student activities on adolescent drug involvement. *Adolescence*, 31, 297-306.
- Jessor, R., ed. (1998). *New perspectives on adolescent risk behaviour*. Cambridge: Cambridge University Press.
- Kadden R & Carroll K. et al. (1994). *Cognitive-behavioural coping skills therapy manual. A clinical research guide for therapists treating individuals with alcohol abuse and dependence*. Rockville MD: National Institute on Alcohol Abuse and Alcoholism.
- Kahn M, Hunter E, Heather N, Tebbutt J. (1990). Australian Aborigines and alcohol: A review. *Drug and Alcohol Review*, 10, 351-366.
- Kandel DB. (1982) Epidemiological and psychosocial perspectives on adolescent drug use. *Journal of the American Academy of Child Psychiatry*, 21, 328-347.
- Kandel, D., Simcha-Fagan, O., Davies, M. (1986). Risk factors for delinquency and illicit drug use from adolescence to young adulthood. *The Journal of Drug Issues*, 16(1), 67-90

- 
- Keating, D. & Hertzman, C. eds. (1999) *Developmental health and the wealth of nations. Social, biological, and educational dynamics*. New York: The Guildford Press.
- Kosterman, R., et al. (2000) The dynamics of alcohol and marijuana initiation: Patterns and predictors of first use in adolescence. *American Journal of Public Health, 90(3)*, 360-366.
- Kumpfer K, Alder S. (1999). Family interventions for the prevention of drug abuse: the need to disseminate research based programs with effective results. Draft paper cited in Davis N. *Resilience: Status of the Research and Research-Based Programs* (Working Paper Draft 28 May 1999). Rockville, MD: Substance Abuse and Mental Health Services Administration, Center for Mental Health Services: Division of Program Development, Special Populations & Projects, Special Programs Development Branch, <http://www.mentalhealth.org/schoolviolence/5-28resilience.htm>.
- Kumpfer KL, Olds DL, Alexander JF, Zucker RA, Gary, LE. (1998a) Family aetiology of youth problems. In RS Ashery, EB Robertson & KL Kumpfer (Eds) *Drug abuse prevention through family interventions*, NIDA Research Monograph 177). Rockville, MD: National Institute on Drug Abuse.
- Louie R, Krouskos D, Gonzalez M, Crofts N. (1998). Vietnamese-speaking injecting drug users in Melbourne: the need for harm reduction programs. *Australian and New Zealand Journal of Public Health, 22*, 481-484.
- Lynskey, M.T., Fergusson, D.M. & Horwood, L. J. (1998). The origins of the correlations between tobacco, alcohol, and cannabis use during adolescence. *Journal of Child Psychology & Psychiatry & Allied Disciplines, 39(7)*, 995-1005.
- Maher L, Dixon D, Lynskey M, Hall W. (1998). *Running the risks: Heroin, health and harm in south-west Sydney*. Sydney: National Drug and Alcohol Research Centre.
- McGue M. (1994). Genes, environment, and the aetiology of alcoholism. In: Zucker R, Boyd G, Howard J, eds. *The development of alcohol problems: Exploring the biopsychosocial matrix of risk* (NIAAA Report Monograph No. 26).
- Merikangas KR, Avenevoli S. (2000). Implications of genetic epidemiology for the prevention of substance use disorders. *Addictive Behaviours, 25*, 807-820.
- Merikangas KR, Dierker L, Fenton B. (1998). Familial factors and substance abuse: Implications for prevention. In RS Ashery, EB Robertson & KL Kumpfer (Eds) *Drug abuse prevention through family interventions*, NIDA Research Monograph 177). Rockville, MD: National Institute on Drug Abuse.
- Merikangas, K.R., Rounsaville, B.J. & Prusoff, B.A. (1992). Familial factors in vulnerability to substance abuse, in M. Glantz and R.W. Pickens (Eds) *Vulnerability to drug abuse* Washington, DC: American Psychological Association, 75-97.

- 
- Molina BS, Chassin L, Curran PJ. (1995a). A comparison of mechanisms underlying substance use for early adolescent children of alcoholics and controls. *Journal of Studies of Alcohol*, 55, 269-275.
- Molina, B.S., L. Chassin, and P.J. Curran, P. J. (1995b) A comparison of mechanisms underlying substance use for early adolescent children of alcoholics and controls. *Journal of Studies of Alcohol*, 55, 269-275.
- National Crime Prevention (1999) *Pathways to prevention: Developmental and early intervention approaches to crime in Australia*. Canberra: Attorney-General's Department.
- National Research Council and Institute of Medicine (2000). Committee on Integrating the Science of Early Childhood Development, and J.P. Shonkoff and D.A. Phillips eds, *From Neurons to Neighbourhoods: The Science of Early Childhood Development*. Washington, DC: National Academy Press.
- Newcomb, M., Maddahian, E. & Bentler, P. (1986). Risk factors for drug use among adolescents: Concurrent and longitudinal analyses. *American Journal of Public Health*, 76, 525-531.
- Oetting E, & Beauvais, F. (1987). Peer cluster theory, socialisation, characteristics, and adolescent drug use. *Journal of Counselling Psychology*, 34, 205-213.
- Patterson G, Reid J, Dishion T. (1992) *A social approach: IV. Antisocial boys*. Eugene, OR: Castilia Publishing Company.
- Patterson GR. (1986). Performance models for antisocial boys. *American Psychology*, 41, 432-444.
- Patterson, K.M., et al. (1999). First-time hospital admissions with illicit drug problems in Indigenous and non-Indigenous Western Australians: an application of record linkage to public health surveillance. *Australian and New Zealand Journal of Public Health*, 23(5), 460-463.
- Penning, M. & Barnes, G.E. (1982). Adolescent marijuana use: A review. *International Journal of the Addictions*, 17, 749-791.
- Petronis KR, & Anthony, J.C. (1999). Paths of 'transmission' of cocaine use and perceived risk of cocaine use within U.S. neighbourhoods. *American Journal of Epidemiology*, 149, S43.
- Pollard, J.A., Hawkins, J.D. & J.D. Arthur, J.D. (1999). Risk and protection: Are both necessary to understand diverse behavioural outcomes in adolescence? *Social Work Research*, 23(3), 145-158.
- Public Health Division Victorian Department of Human Services (2000) *Drugs in a multicultural community: An assessment of involvement*. Melbourne: Public Health Division Victorian Department of Human Services.
- Resnick M, Harris L, Blum R. (1993). The impact of caring and connectedness on adolescent health and well-being. *Journal of Paediatric Child Health*, 29, S3-S9.

- Rhodes J. & Jason L. (1988). *Preventing substance abuse among children and adolescents*. New York: Pergamon Press.
- Rissel C, McLellan L, Bauman A. (2000a). Factors associated with delayed tobacco uptake among Vietnamese/Asian and Arabic youth in Sydney, New South Wales. *Australian and New Zealand Journal of Public Health*, 24, 22-28.
- Rissel C, McLellan L, Bauman A. (2000b). Social factors associated with ethnic differences in alcohol and marijuana use by Vietnamese-, Arabic- and English-speaking youths in Sydney, Australia. *Journal of Paediatrics & Child Health*, 36, 145-52.
- Rutter, M. (1995). Causal concepts and their testing. In M. Rutter and D.J. Smith, Editors *Psychosocial disorders in young people: Time trends and their causes*. Chichester: John Wiley and Sons, 7-34.
- Silburn S. (2001). Personal communication, January.
- Silburn, S., Zubrick, S.R., Garton, A., Gurrin, L., Burton, P, Dalby, R., Carlton, J., Shepherd, C., & Lawrence, D. (1996) *Western Australian Child Health Survey: Family and Community Health*. Perth: Australian Bureau of Statistics and the TVW Telethon Institute for Child Health Research.
- Smart R, Adlaf E, Walsh G. (1994) Neighbourhood socio-economic factors in relation to student drug use and programs. *Journal of Child and Adolescent Substance Abuse*, 3, 37-46.
- Sokol-Katz J, Dunham R & Zimmerman R. (1997). Family structure versus parental attachment in controlling adolescent deviant behaviour: A social control model. *Adolescence*, 32, 199-215.
- Spooner, C, Hall, W. and Lynskey, M. (2001) *Structural determinants of youth drug use*. (ANCD Research Paper No 2). Canberra: Australian National Council on Drugs.
- Spooner, C. (1999) Causes of adolescent drug abuse and implications for treatment. *Drug and Alcohol Review*, 18, 457-79.
- Stanton M, Landau-Stanton J. (1990). Therapy with families of adolescent substance abusers. In: Milkman H, Sederer L, eds. *Treatment choices for alcoholism and substance abuse*. Massachusetts: Lexington Books, 329-339.
- Swadi H. (1992) Relative risk factors in detecting adolescent drug abuse. *Drug and Alcohol Dependence*, 29, 253-254.
- Vinson, T. (1999). *Unequal in life: The distribution of social disadvantage in Victoria and New South Wales*. Richmond Vic: Jesuit Social Services.
- Weinberg, N.Z. (1998). Adolescent substance abuse: A review of the past ten years. *Journal of the American Academy of Child and Adolescent Psychiatry*, 37(3), 252-261.

Williams B, Sanson A, Toumbourou J, Smart D. (2000). *Patterns and predictors of teenagers' use of licit and illicit substances in the Australian Temperament Project cohort*. Melbourne: Report commissioned by the Ross Trust.

## CHAPTER 2: EPIDEMIOLOGY

- Adhikari P & Summerill A. (2000). 1998 National Drug Strategy Household Survey: Detailed findings. AIHW cat. no. PHE 27. Canberra: AIHW (Drug Statistics Series No 6).
- Australian Bureau of Statistics & Australian Institute of Health and Welfare (1999). *The Health and Welfare of Australia's Aboriginal and Torres Strait Islander Peoples*. AUSTRALIAN BUREAU OF STATISTICS Catalogue no. 4704.0.
- Australian Bureau of Statistics. (1998). *Census of Population and Housing. Aboriginal and Torres Strait Islander People 1996*. AUSTRALIAN BUREAU OF STATISTICS Catalogue no. 2034.0.
- Australian Bureau of Statistics. (1998). *Family characteristics Australia*. AUSTRALIAN BUREAU OF STATISTICS Cat. No. 4442.0.
- Australian Bureau of Statistics. (1999a). *Household and family projections Australia 1996 to 2021*. AUSTRALIAN BUREAU OF STATISTICS Cat. No. 3236.0.
- Australian Bureau of Statistics. (1999b). *Children, Australia: A Social Report*. AUSTRALIAN BUREAU OF STATISTICS Cat No. 4119.0.
- Australian Bureau of Statistics. (2000). *Migration 1998–99*. AUSTRALIAN BUREAU OF STATISTICS Catalogue no. 3412.0.
- Australian Department of Immigration and Multicultural Affairs Humanitarian Program Statistics <http://www.immi.gov.au/statistics/refugee.htm>
- Australian Institute of Health and Welfare. (2000). *Child Protection Australia 1998–99*. AIHW Cat. No. CWS 11. Canberra: AIHW (Child Welfare Series no. 25).
- Australian Institute of Health and Welfare. (1997). *Australia's Welfare 1997: Services and assistance*. Canberra: AIHW.
- Australian Institute of Health and Welfare. (2001). Unpublished Data 1998 National Drug Strategy Household Survey.
- Bond L, Thomas L, Toumbourou J, Patton G & Catalano R (2000). *Improving the lives of young Victorians in our community—A survey of risk and protective factors*. Melbourne: Centre for Adolescent Health.
- Gregory RG, Hunter B. (1995). *The macro economy and the growth of ghettos and urban poverty in Australia. The National Press Club Telecom Address* (Discussion Paper No. 325). Canberra: Australian National University, Centre for Economic Policy Research.

- Gregory, R.G. (1999). Children and the changing labour market: joblessness in families with dependent children, *Centre for Economic Policy Research Discussion Paper No. 406*, Centre for Economic Policy Research, Australian National University, Canberra.
- Harding A & Szukalska A. (1999). *Trends in child poverty in Australia: 1982 to 1996-96*. National Centre for Social and Economic Modelling, Canberra.
- Miller, P. (1997), 'The burden of unemployment on family units: an overview', *The Australian economic Review*, 30(1).
- Moon L, Meyer P, Grau J. (1999). *Australia's young people: their health and wellbeing 1999*. AIHW Cat. No. PHE 19, Canberra: Australian Institute of Health and Welfare.
- Moon L, Rahman N, Bhaia K. (1998). *Australia's children: Their health and wellbeing 1998*. The first report on children's health by the Australian Institute of Health and Welfare (AIHW Cat No. PHE 7). Canberra: Australian Institute of Health and Welfare.
- Prior M, Sanson A, Smart D & Oberklaid F. (2000). *Pathways from infancy to adolescence; Australian Temperament Project 1983-2000*. Melbourne: Australian Institute of Family Studies.
- Shaver S. (1998). Poverty, gender and sole parenthood. In R. Fincher & J. Nieuwenhuysen (eds.), *Australian Poverty: Then and Now*. Melbourne University Press.
- Silburn SR, Zubrick SR, Garton A, Gurrin L, Burton P, Dalby R, Carlton J, Shepherd C & Lawrence D. (1996). *Western Australian Child Health Survey: Family and Community Health*. Perth: Australian Bureau of Statistics and the TVW Telethon Institute for Child Health Research.
- Smyth B & Weston R. (2001). *Financial living standards after divorce*. Research Paper 23, Melbourne, AIFS.
- Victorian Department of Human Services. (2000). *Improving the lives of young Victorians in our community—A Summary Report*. Melbourne: Community Care Division, Victorian Department of Human Services.
- Weston R. (1986). Changes in household income circumstances. In P. McDonald (ed.) *Settling Up: Property and Income Distribution on Divorce in Australia*. Melbourne: Australian Institute of Family Studies.
- Weston R. (1993). Income circumstances of parents and children: a longitudinal view. In K Funder, M Harrison & R Weston (eds), *Settling Down: Pathways of Parents after Divorce*. Melbourne, Australian Institute of Family Studies.
- Weston RE. (1997). Adolescents' satisfaction with relationships with parents: hornet's nest or haven?. Paper presented at the *First Annual International Society for Quality of Life Studies Conference*, Charlotte, North Carolina USA 20-23 November.

Zubrick SR, Silburn SR, Garton A, Burton P, Dalby R, Carlton J, Shepherd C, Lawrence D. (1995). *Western Australian Child Health Survey: Developing Health and Well-being in the Nineties*. Perth, Australian Bureau of Statistics and the TVW Telethon Institute for Child Health Research.

Zubrick SR (2001). Personal communication.

Zubrick SR, Silburn SR, Gurrin L, Teoh H, Shepherd C, Carlton J, Lawrence D. (1996). *Western Australian Child Health Survey: Education, Health and Competence*. Perth: Australian Bureau of Statistics and the TVW Telethon Institute for Child Health Research.

Zubrick SR, Williams AA, Silburn SR & Vimpani G. (2000). *Indicators of social and family functioning*. Canberra: Department of Family and Community Services.

### CHAPTER 3: PREVENTION AND EARLY INTERVENTION

Alexander, J. F., Barton, C., Schiavo, R.S., & Parsons, B.V. (1976). Behavioural interventions with families of delinquents: therapist characteristics and outcomes. *Journal of Consulting and Clinical Psychology, 44*, 656-664.

Alexander, J.F. & Parsons, B.V. (1982). *Functional Family Therapy*. Monterey, CA: Brooks/Cole.

Armstrong, K.L., Fraser, J.A., Dadds M.R., & J Morris, J. (1999). A randomised controlled trial of nurse home visiting to vulnerable families with newborns. *Journal of Paediatrics and Child Health, 35*, 237-244.

Bamberg, J., Toumbourou, J., Blyth, A., & Forer, D. (in press). Profiling changes for families in the BEST program, for parents coping with youth substance abuse. *Australian & New Zealand Journal of Family Therapy*.

Barker, W. & Anderson, R. (1988). *The child development program: an evaluation of process and outcomes*. Early Childhood Development Unit. University of Bristol, p103-105.

Barton, C., Alexander, J.F., Waldron, H., Turner, C.W., & Warburton J. (1985). Generalising treatment effects of functional family therapy: three replications. *American Journal of Family Therapy, 13*, 16-26.

Beckwith, L. (2000). Prevention Science and Prevention Programs. In C.H Zeanah, Jr. (Ed.) *Handbook of Infant Mental Health, Second Edition* (pp 439-456). New York: Guilford.

Black, M.M., Nair, P., Knight, C., Wachtel, R., Roby, P., & Schuler, M. (1994). Parenting and early development among children of drug-abusing women: effects of home intervention. *Pediatrics, 94*, 440-448.

Blyth, A., Bamberg, J., & Toumbourou, J. (2000). *Behaviour Exchange Systems Training: A Program for Parents Stressed by Adolescent Substance Abuse*. Camberwell: Australian Council for Educational Research.

- Booth, C.L., Barnard, K.E., Mitchell, S.K., & Spieker, S.J. (1987). Successful intervention with multi-problem mothers: effects on the mother-infant relationship. *Infant Mental Health Journal, 8*, 288-306.
- Bowlby, J. (1969). *Attachment and Loss, Volume 1 (Attachment)*. New York, NY: Basic Books.
- Bronfenbrenner, U. (1989). Ecological systems theory. In P. Vasta (Ed.), *Annals of child development, Vol 6. Six theories of child development: revised formulations and current issues*. London: Jai Press, p187-249.
- Brook, J.S., Brook, D.W., Gordon, A.S., Whiteman, M., & Cohen, P. (1990c). The psychosocial aetiology of adolescent drug use: a family interactional approach. *Genetic, Social and General Psychology Monographs, 116*, 111-267.
- Brooks-Gunn, J., Berlin, L.J., & Fuligni, A.S. (2000). Early childhood intervention programs: what about the family? In J.P. Shonkoff & S.J. Meisels (Eds.), *Handbook of early childhood Intervention*. New York, NY: Cambridge University Press, p549-587.
- Bry, B.H., Catalano, R.F., Kumpfer, K.L., Lochman, J.E., & Szapocznik J. (1998). Scientific Findings from Family Prevention Intervention Research. In R.S. Ashery, E.B. Robertson, K.L. Kumpfer (Eds.) *Drug abuse prevention through family interventions: NIDA Research Monograph 177*. Rockville, MD: United States Department of Human Services, National Institute on Drug Abuse, p 103-129.
- Bry, B.H., Conboy, C., & Bisgay, K. (1986). Decreasing adolescent drug use and school failure: long-term effects of targeted family-problem-solving training. *Child Family and Behavioural Therapy, 8*, 43-59.
- Carmichael-Olson, H. & Kendall, K. (1994). *Chemically-dependent women offered treatment during pregnancy: Maternal and child outcome (an ongoing follow-up study)*, (Technical Report No. 94-124). Seattle: University of Washington, Department of Psychiatry and Behavioural Sciences.
- Catalano, R.F., Gaine, R.R., Fleming, C.B., Haggerty, K.P., & Johnson, N.O. (1999). An experimental intervention with families of substance abusers: one-year follow-up of the focus on families project. *Addiction, 94*, 241-254.
- Catalano, R.F., Kosterman, R., Haggerty, K., Hawkins, J.D., & Spoth, R.L. (1998). A universal intervention for the prevention of substance abuse: preparing for the drug-free years. In R.S. Ashery, E.B. Robertson, K.L. Kumpfer (Eds.) *Drug abuse prevention through family interventions: NIDA Research Monograph 177*. Rockville, MD: United States Department of Human Services, National Institute on Drug Abuse, p130-159.
- Cunningham PB & Henggeler SW (1999). Engaging multiproblem families in treatment: Lessons learned throughout the development of Multisystemic Therapy. *Family Process, 38(3)*, 265-281.

- 
- DeMarsh, J.K., & Kumpfer, K.L. (1985). Family environmental and genetic influences on children's future chemical dependency. *Journal of Child in Contemporary Society: Advanced Theory of applied Research*, 18, 117-152.
- Dishion, T.J., & Andrews, D.W. (1995). Preventing escalation in problem behaviours with high-risk young adolescents: Immediate and 1-year outcomes. *Journal of Consulting and Clinical Psychology*, 63, 538-548.
- Dishion, T.J. & Kavanagh, K (2000a). A multilevel approach to family-centred prevention in schools: process and outcome. *Addictive behaviours*, 25, 899-911.
- Dishion, T.J., & Kavanagh, K. (2000b). A multilevel approach to family-centred prevention in schools: process and outcome. *Addictive behaviours*, 25, 899-911.
- Egeland, B., & Erickson, M.F. (1987). Psychologically unavailable caregiving: the effects on development of young children and the implications for prevention. In M. Brassard, S. Hart, & B.Germain (Eds.) *Psychological maltreatment of children and youth*. New York,NY: Pergamon Press, p110-120.
- Egeland, B., & Erickson, M.F. (1990). Rising above the past: strategies for helping new mothers to break the cycle of abuse and neglect. *Zero to Three*, 11, 29-35.
- Gordon, D.A., Arbuthnot, J., Gustafson, K.E., & McGreen, P. (1988). Home-based behavioural-systems family therapy with disadvantaged juvenile delinquents. *American Journal of Family Therapy*, 16, 243-255.
- Grant,T.M., Streissguth, A.P., Ernst, C., Beirut, L., Phipps, P., & Gendler, B. (1994). *Intervening effectively with drug and alcohol abusing mothers: the Seattle Birth to three advocacy project 12-month findings* (Technical Report No. 94-105). Seattle: University of Washington.
- Gustafson, J.P., & Cooper, L. (1985). Supervision in a group: an application of group therapy. *Clinical supervisor*, 3, 7-25.
- Harrison, R.S., & Proschauer, S. (1996). *The impact of family skills training on children at risk for substance abuse and their families: a five-year evaluation*. Final report submitted to the Center for Substance Abuse Prevention, Social Research Institute, Graduate School of Social Work, Salt Lake City, Utah.
- Harrison, S. (1994). *Final evaluation report on Utah CSAP/CYAP Project*. Submitted to Utah State Division of Substance Abuse. Social Research Institute, University of Utah.
- Hazelrigg, M.D., Cooper, H.M., & Bourduin, C.M. (1987). Evaluating the effectiveness of family therapies: an integrative review and analysis. *Psychological Bulletin*, 101, 428-442.
- Henggeler, S.W., Melton, G.B., & Smith L.A. (1992). Family preservation using multisystemic treatment: an effective alternative to incarcerating serious juvenile offenders. *Journal of Consulting and Clinical Psychology*, 60, 953-961.

- Jacobson, S.W., & Frye, K.F. (1991). Effect of maternal social support on attachment: experimental evidence. *Child Development, 62*, 572-582.
- Jenkin, C., & Bretherton, D. (1994). *PACE Parenting Adolescents: a creative experience*. Camberwell, Vic: Australian Council for Educational Research.
- Karoly, L.A., Greenwood, P.W., Everingham, S.S., Houbé, J., Kilburn, M.R., Rydell, C.P., Sanders, M., Chiesa, J. (1998). *Investing in our children: What we know and don't know about the costs and benefits of early childhood intervention*. Santa Monica CA: Rand.
- Keating, D.P., & Hertzman, C. (1999). *Developmental Health and the Wealth of Nations*. London: Guilford.
- Klein, N., Alexander, J.F., & Parsons, B.V. (1977). Impact of family systems on recidivism and sibling delinquency: a model of primary prevention and program evaluation. *Journal of Consulting and Clinical Psychology, 45*, 469-474.
- Krinsky, K.E. (1991). Behavioural family therapy for adolescent school problems: school performance effects and generalisation to substance abuse. (Doctoral dissertation, Rutgers University.) *Dissertation Abstracts International, 52*, 1725B.
- Kumpfer, K.L., Alexander, J.F., McDonald, L. & Olds, D.L. (1998b). Family-focused substance abuse prevention: what has been learned from other fields. In R.S. Ashery, E.B. Robertson, K.L. Kumpfer (Eds.) *Drug abuse prevention through family interventions: NIDA Research Monograph 177*, Rockville, MD: United States Department of Human Services, National Institute on Drug Abuse, p78-102.
- Liddle, H.A., & Dakof, G.A. (1995). Efficacy of family therapy for drug abuse: promising but not definitive. *Journal of Marital and Family Therapy, 21*, 511-543.
- Lipsey, M.W. (1992). Juvenile delinquency treatment: a meta-analytic inquiry into the variability of effects. In T.D. Cook, H. Cooper, D.S. Cordray, H. Hartmann, L.V. Hedges, R.J. Light, T.A. Louis, & F. Mosteller (Eds.). *Meta-analysis for explanation*. New York, NY: Russell Sage Foundation, p83-127.
- Lochman, J.E., & Wells, K.A. (1996). A social-cognitive intervention with aggressive children: prevention effects and contextual implementation issues. In R. deV. Peters & R.J. McMahon (Eds.) *Childhood disorders, substance abuse and delinquency: prevention and early intervention approaches* Newbury Park, CA: Sage, p90-110.
- Mitchell P. (2000a). *Primary prevention and early intervention: Evaluation of the National Youth Suicide Prevention Strategy*, Technical Report Volume 2. Melbourne: Australian Institute of Family Studies.
- National Crime Prevention (1999). *Pathways to Prevention: Developmental and early intervention approaches to crime in Australia*. Canberra: National Crime Prevention, Attorney-General's Department.

- 
- Olds, D.L., Eckenrode, J., Henderson Jr, C.R., Kitzman, H., Powers, J., Cole, R., Sidora, K., Morris, P., Pettitt, L.M., & Luckey, D. (1997). Long-term effects of home visitation on maternal life course and child abuse and neglect: 15-year follow-up of a randomised trial. *JAMA*, *278*, 637-643.
- Perry, C., Williams, C.L., Veblen-Mortenson, S., Toomey, T., Komro, K., Anstine, P., McGovern, P., Finnegan, J., Forster, J., Wagenaar, A., & Wolfson, M. (1996). Project Northland: Outcomes of a community-wide alcohol use prevention program during early adolescence. *American Journal of Public Health*, *86*, 956-965.
- Rao, S.A. (1998). *The short-term impact of the Family Check-Up: a brief motivational intervention for at-risk families*. Unpublished doctoral dissertation, University of Oregon.
- Robbins, M.S., Alexander, J.F., Newell, R.M., & Turner, C.W. (1996). The immediate effect of reframing on client attitude in family therapy. *Journal of Family Psychology*, *10*, 28-34.
- Sameroff, A.J., & Chandler, M.J. (1975). Reproductive risk and the continuum of caretaking casualty. In F.D. Horowitz, M. Hetherington, S. Scarr-Salpatek & G. Sigel (Eds.), *Review of Child Development Research, Volume 4*. Chicago, IL: University of Chicago Press, p187-244.
- Sanders, M.R. (2000). Community-based parenting and family support interventions and the prevention of drug abuse. *Addictive Behaviours*, *25*, 929-942.
- Sanders, M.R. (1998). The empirical status of psychological interventions with families of children and adolescents. In L. L'Abate (Ed.) *Family psychopathology: the relational roots of dysfunctional behaviour*. New York, NY: Guilford, 1998.
- Santos AB, Henggeler SW, Burns BJ, Arana GW & Meiser N. (1995). Research on field-based services: models for reform in the delivery of mental health care to populations with complex clinical problems. *American Journal of Psychiatry*, *152* (8), 1111-1123.
- Schweinhart, L.J., Barnes, H.V., Weikart, D. P. et al. (1993). *Significant benefits: the High/Scope Perry Preschool Study through age 27*. Ypsilanti, MI: High Scope Press.
- Serketich, W.J., & Dumas, J.E. (1996). The effectiveness of behavioural parent training to modify antisocial behaviour in children: a meta-analysis. *Behaviour Therapy*, *27*, 171-186.
- Shonkoff, J.P. & Phillips, D. A. (2000). Promoting healthy development through intervention. In J.P. Shonkoff & D.A. Phillips (eds) *From neurons to neighbourhoods: the Science of Early Childhood Development*. Washington, DC: National Academy Press.
- Spoth, R., & Redmond, C. (1996). A theory based competency model incorporating intervention attendance effects. *Family Relations*, *45*, 139-147.

- Spoth, R., Redmond, C., & Shin, C. (1998). Direct and indirect latent-variable parenting outcomes of two universal family-focused preventive interventions: extending a public health-oriented base. *Journal of Consulting and Clinical Psychology, 66*, 385-399.
- Spoth, R., Redmond, C., Haggerty, K., & Ward, T. (1995). A controlled outcome study examining individual difference and attendance effects. *Journal of Marriage and Family, 57*, 449-464.
- Szapocznik, J., & Kurtines, W.M. (1989). *Breakthroughs in family therapy with drug-abusing and problem youth*. New York, NY: Springer.
- Szapocznik, J., Kurtines, W.M., Perez-Vidal, A., Brickman, A., Foote F. H., Santisteban, D., & Hervis, O.E. (1988). Engaging adolescent drug abusers and their families into treatment: strategic structural systems approach. *Journal of Consulting and Clinical Psychology, 56*, 552-557.
- Taylor, T.K. & Biglan, A. (1998). Behavioural Family Interventions for improving child-rearing: a review of the literature for clinicians and policy makers. *Clinical Child and Family Psychology Review, 1*, 41-60.
- Toumbourou, J., & Gregg, E. (1999). *Evaluation of Program for Parents*. Parkville, Vic: Centre for Adolescent Health Report.
- University of Colorado Health Sciences Center. (1997). *How to read your baby: PIPE (Partners in Parenting Education) Training /Implementation Manual*. Denver CO: University of Colorado, 1997.
- Van den Boom, D. (1994). The influence of temperament and mothering on attachment: an exploration of manipulation with sensitive responsiveness among lower class mothers with irritable infants. *Child Development, 65*, 1457- 1477.
- Van Ijzendoorn, M.H., Juffer, F., & Duyvesteyn, M. G. (1995). Breaking the intergenerational cycle of insecure attachment: a review of the effects of attachment-based interventions on maternal sensitivity and infant security. *Journal of Child Psychology and Psychiatry, 36*, 225-248.
- Zuckerman, B., & Kahn, R (2000). Pathways to early child health and development. In S.Danzinger & J. Waldfogel (Eds.) *Securing the future: investing in children from Birth to College*. New York, NY: Sage, p87-121.

#### CHAPTER 4: TREATMENT

- Alexander, J.F., Holtzworth-Munroe, A. & Jameson, P. (1994). The process and outcome of marital and family therapy: Research review and evaluation. In A. E. Bergin & S. L. Garfield (Eds.) *Handbook of psychotherapy and behaviour change* (4th ed.). New York: Wiley, p595-630.
- Azrin, N.H. (1976). Improvements in the community reinforcement approach to alcoholism. *Behavioural Research and Therapy, 14*, 339-348.

- 
- Azrin, N.H., Donohue, B., Besalel, V.A., Kogan, E.S., & Acierno, R. (1994). Youth drug abuse treatment: A controlled outcome study. *Journal of Child & Adolescent Substance Abuse, 3*, 1-15.
- Baucom, D.H., Mueser, K.T., Daiuto, A.D. & Stickle, T.R. (1998). Empirically supported couple and family interventions for marital distress and adult mental health problems. *Journal of Clinical and Consulting Psychology, 66(1)*, 53-88.
- Berenson, D. (1976). Alcohol and the family system. In P. Guerin (ed.). *Family Therapy: Theory and Practice*. New York: Gardner Press.
- Bowers, T.G. & Al-Redha, M.R. (1990). A comparison of outcome with group/ marital and standard/individual therapies with alcoholics. *Journal of Studies on Alcohol, 51*, 301-309.
- Catalano, R.F., Hawkins, J.D., Wells, E.A., Miller, J.Y. & Brewer, D. (1990-1991). Evaluation of the effectiveness of adolescent drug abuse treatment, assessment of risk for relapse, and promising approaches for relapse prevention. *The International Journal of the Addictions, 25*, 1085-1140.
- Chen, R., Mattick, R.P., & Baillie, A. (1992). *Clients of Treatment Service Agencies: March 1992 Census Findings*. Canberra: Commonwealth Department of Health and Human Services.
- Conroy, A. & Copeland, J. (1998). *The National Minimum Data Set Project For Alcohol And Other Drug Treatment Services: Report On The Pilot Study And Recommended Set Of Data Definitions (Technical Report 65)*. Sydney: NDARC.
- Copeland, J. & Hall, W. (1992). A comparison of predictors of treatment drop-out of women seeking drug and alcohol treatment in a specialist women's and two traditional mixed-sex treatment services. *British Journal of Addiction, 87(6)*, 883-890.
- Cunningham PB & Henggeler SW (1999). Engaging multiproblem families in treatment: Lessons learned throughout the development of Multisystemic Therapy. *Family Process, 38(3)*, 265-281.
- Edwards, M.E. & Steinglass, P. (1995). Family therapy treatment outcomes for alcoholism. *Journal of Marital and Family Therapy, 21(4)*, 475-509.
- Friedman, A.S., Terras, A., & Kreisher, C. (1995). Family and client characteristics as predictors of outpatient treatment outcome for adolescent drug abusers. *Journal of Substance Abuse, 7*, 345-356.
- Garrett, J., Landau-Stanton, J., Stanton, M.D., Stellato-Kabat, J & Stellato-Kabat, D. (1997). ARISE: A method for engaging reluctant alcohol and other drug dependent individuals in treatment. *Journal of Substance Abuse Treatment, 14(3)*, 235-248.

- 
- Henggeler SW, Melton GB & Smith LA (1992). Family preservation using Multisystemic Therapy: An effective alternative to incarcerating serious juvenile offenders. *Journal of Consulting and Clinical Psychology, 60*(6), 953-961.
- Henggeler, S.W., Bourdin, C.M., Melton, G.B., Mann, B.J., Smith, L.A., Hall, J.A., Cone, L., & Fucci, B.R. (1991). Effects of multisystemic therapy on drug use and abuse in serious juvenile offenders: a progress report from two outcome studies. *Family Dynamics and Addiction, 1*, 40-51.
- Joanning, H., Quinn, W., Thomas, F., & Mullen, R. (1992). Treating adolescent drug abuse: a comparison of family systems, group therapy and family drug education. *Journal of Marital Family Therapy, 18*, 345-356.
- Johnson, V.E. (1980). *I'll Quit Tomorrow*. San Francisco, CA: Harper & Row.
- Kaufman, E. (1986). A contemporary approach to the family treatment of substance use disorders. *American Journal of Drug and Alcohol Abuse, 12*(3), 199-211.
- Keating, D. & Hertzman, C. eds (1999) *Developmental health and the wealth of nations. Social, biological, and educational dynamics*. New York: The Guildford Press.
- Latimer, W.W., Winters, K.C., Stinchfield, R. & Traver, R.E. (2000) Demographic, individual and interpersonal predictors of adolescent alcohol and marijuana use following treatment. *Psychology of Addictive Behaviours, 14*(12), 162-173.
- Lewis, R.A., Piercy, F.P., Sprenkle, D.H., & Trepper, T.S. (1990). Family-based interventions for helping drug-abusing adolescents. *Journal of Adolescent Research, 50*, 82-95.
- Liddle, H.A. & Dakof, G.A. (1995a). Family-based treatment for adolescent drug use: state of the science. In E. Rahdert & D. Czechowicz (eds.). *Adolescent drug abuse: clinical assessment and therapeutic interventions*. Rockville: NIDA Research Monograph 156. DHHS Pub. No. (ADM) 95-3908, p218-254.
- Liddle, H.A. & Dakof, G.A. (1995b). Efficacy of family therapy for drug abuse: promising but not definitive. *Journal of Marital and Family Therapy, 21*(4), 511-453.
- Liepman, M.R., Nirenberg, T.D., & Begin, A.M. (1989). Evaluation of a program designed to help family and significant others to motivate resistant alcoholics into recovery. *American Journal of Drug and Alcohol Abuse, 15*, 209-221.
- Lipps, A.J. (1999). Family therapy in the treatment of alcohol related problems: a review of behavioural family therapy, family systems therapy and treatment matching research. *Alcoholism Treatment Quarterly, 17*(3), 13-23.
- Logan, D.G. (1983). Getting alcoholics to treatment by social network intervention. *Hospital and Community Psychiatry, 34*, 360-361.

- 
- Loneck, B., Garrett, J., & Banks, S. (1996a). A comparison of the Johnson Intervention with four other methods of referral to outpatient treatment. *American Journal of Drug and Alcohol Abuse, 22*, 233-246.
- Loneck, B., Garrett, J., & Banks, S. (1996b). The Johnson Intervention and relapse during outpatient treatment. *American Journal of Drug and Alcohol Abuse, 22*, 363-375.
- Markus, E., Lange, A., & Pettigrew, T.F. (1990). Effectiveness of family therapy: a meta-analysis. *Journal of Family Therapy, 12*, 205-221.
- Mattick, R.P. & Jarvis, T. (Eds.) (1993). An outline for the management of alcohol problems: quality assurance project. *National Drug Strategy Monograph Series No. 20*. Canberra.
- McCrary, B.S. (1989). Outcomes of family-involved alcoholism treatment. *Recent Developments in Alcoholism, 7*, 165-182.
- McCrary, B.S. (1986). The family in the change process. In W.R. Miller & N. Heather (Eds.). *Treating Addictive Behaviours: Process of Change*. New York: Plenum.
- McCrary, B.S., Moreau, J., Paolino, R. & Longabaugh, R. (1982). Joint hospitalisation and couples therapy for alcoholism: a four year follow-up. *Journal of Studies on Alcohol, 43*, 1244-1250.
- McGoldrick, M., Pearce, J.K. & Giordano, J. (eds.). (1982). *Ethnicity and Family Therapy*. New York: Guilford Press.
- Meyers, R. J., Dominguez, T. P., & Smith, J. E. (1996). Community reinforcement training with concerned others. In V. B. Van Hasselt & M Hersen (Eds.) *Sourcebook of Psychological Treatment Manuals for Adult Disorders*. New York: Plenum Press.
- Meyers, R.J. & Smith, J.E. (1997). Getting off the fence: procedures to engage treatment-resistant drinkers. *Journal of Substance Abuse Treatment, 14*, 467-472.
- Miller, W.R. & Hester, R.K. (1986). The effectiveness of alcoholism treatment: what research reveals. In W.R. Miller & N. Heather (Eds.). *Treating Addictive Behaviours: Process of Change*. New York: Plenum.
- Nakamura, K. & Takano, T. (1991). Family involvement for improving abstinence rates in the rehabilitation process of female alcoholics. *The International Journal of the Addictions, 26(10)*, 1055-1064.
- O'Farrell, T.J. & Cowles, K.S. (1989). Marital and family therapy. In R. Hester & W.R. Miller (Eds.). *Comprehensive Handbook of Alcoholism Treatment Approaches*. New York: Plenum.
- Orford, J. (1984). The prevention and management of alcohol problems in the family setting: a review of the work carried out in English-speaking countries. *Alcohol & Alcoholism, 19(2)*, 109-122.

- 
- Santisteban, D.A. & Szapocznik, J. (1984). Bridging theory, research and practice to more successfully engage substance abusing youth and their family into therapy. *Journal of Child and Adolescent Substance Abuse*, 3(2), 9-24.
- Santos AB, Henggeler SW, Burns BJ, Arana GW & Meiser N (1995). Research on field-based services: models for reform in the delivery of mental health care to populations with complex clinical problems. *American Journal of Psychiatry*, 152 (8), 1111-1123.
- Schmidt, S., Liddle, H.A., & Dakof, G.A. (1996). Multidimensional family therapy: parenting practices and symptom reduction in adolescent drug use. *Journal of Family Psychology*, 10, 12-27.
- Slesnik, N., Meyers, R.J., Mease, M., & Segelken, D.H. (2000). Bleak and hopeless no more. Engagement of reluctant substance-abusing runaway youth and their families. *Journal of Substance Abuse Treatment*, 19, 215-222.
- Stanton, M.D., Todd, T.C. and Associates (1992). *The Family Therapy of Drug Abuse and Addiction*. New York: Guilford Press.
- Szapocznik, J., Kurtines, W.M., Foote, F.F., Perez-Vidal, A., & Hervis, O. (1983). Conjoint versus one-person family therapy: some evidence for the effectiveness of conducting family therapy through one person. *Journal of Clinical and Consulting Psychology*, 51, 881-889.
- Szapocznik, J., Kurtines, W.M., Foote, F.F., Perez-Vidal, A., & Hervis, O. (1986). Conjoint versus one-person family therapy: Further evidence for the effectiveness of conducting family therapy through one person with drug-abusing adolescents. *Journal of Clinical and Consulting Psychology*, 54, 395-397.
- Szapocznik, J., Perez-Vidal, A., Brickman, A.L., Foote, F.F., Santisteban, D., Hervis, O., & Kurtines, W.M. (1988). Engaging adolescent drug abusers and their families in treatment: a strategic structural systems approach. *Journal of Clinical and Consulting Psychology*, 56, 552-557.
- Szuster, R.R., Rich, L.L., Chung, A., & Bisconer, S.W. (1996). Treatment retention in women's residential chemical dependency treatment: the effect of admission with children. *Substance Use & Misuse*, 31(8), 1001-1013.
- Thomas, E.J. & Ager, R.D. (1993). Unilateral family therapy with spouses of uncooperative alcohol abusers. In T.G. O'Farrell (ed.). *Treating Alcohol Problems: Marital and Family Interventions*. New York: Guilford Press.
- Thomas, E.J. Santa, C.A., Bronson, D., & Oyserman, D. (1987). Unilateral family therapy with spouses of alcoholics. *Journal of Social Services Research*, 10, 145-162.
- Torres, M.L., Mattick, R.P., Chen, R., & Baillie, A. (1995). *Clients of Treatment Service Agencies: March 1995 Census Findings*. Canberra: Commonwealth Department of Health and Human Services.

- 
- Waldron, H.B., Meyers, R.J. & Slesnik, N. (1999). *Engaging resistant adolescent substance abusers into treatment*. NIDA grant no. RO1 DA11955.
- Weidman, A. (1987). Family therapy and reduction in treatment drop-out in a residential therapeutic community for chemically dependent adolescents. *Journal of Substance Abuse Treatment, 42*, 21-28.
- Weidman, A.A. (1985). Engaging the families of substance abusing adolescents in family therapy. *Journal of Substance Abuse Treatment, 2*, 97-105.
- Winters, K.C. (1999). *Treatment of Adolescents with Substance Use Disorders. Treatment Improvement Protocol Series 32*. Rockville: United States Department of Health and Human Services.
- Yates, F.E. (1988). The evaluation of a 'co-operative counseling' alcohol service which uses family and affected others to reach and influence problem drinkers. *British Journal of Addictions, 83*, 1309-1319.

#### CHAPTER 5: ISSUES FOR RESEARCH IN SERVICE AND POLICY DEVELOPMENT

- Commonwealth Department of Health and Aged Care. (2000c). *LIFE—Living is for everyone: A framework for prevention of suicide and self-harm in Australia. Areas for action*. Canberra: Mental Health and Special Programs Branch.
- Commonwealth Department of Health and Aged Care. (2000d). *National Action Plan for Promotion, Prevention and Early Intervention for Mental Health 2000*. Canberra: Mental Health and Special Programs Branch.
- Department of Family and Community Services. (2000). *Stronger Families and Communities Strategy*. Canberra: Department of Family and Community Services.
- Ethnic Youth Issues Network, Victorian Council of Churches Youth Outreach Program & RMIT Centre for Youth Research and Development. (1998). *Developing best practice drug and alcohol treatment service and support models for young people of Cambodian, Lao and Vietnamese origin*. Melbourne: Department of Human Services.
- Hodge M. (1996). Social worlds in collision: When policy meets policy on parental substance abuse. *Children Australia, 21(4)*, 17-21.
- Hunt G, Hawkins R & Goodlet T. (1992). Parenting: a survey of community needs. *Children Australia, 17(3)*, 9-12.
- Intergovernmental Committee on Drugs and the Australian National Council on Drugs (1998). *National Drug Strategic Framework 1998-99 to 2002-03: Building Partnerships*. AusInfo, Canberra.
- Kimpton K & Shaw G. (1999). Families, resilience, drugs, parenting and the Victorian Department of Education. *Health Education Australia*, Spring Edition, October, 10-11.

- 
- Mallick J, Evans R & Stein G. (1998). Parents and drug education: parents' concerns, attitudes and needs. *Drug: education, prevention and policy*, 5(2), 169-176.
- McKey J & Trimmingham T. (1999). Families: Can we ease their pain. *Connexions*, Oct/Nov, 3-9.
- McKey J. (1997). Parent power: pushing drugs onto the political platform. *Connexions*, Oct/Nov, 4-9.
- Mitchell P. (2000a). *Primary prevention and early intervention: Evaluation of the National Youth Suicide Prevention Strategy*. Australian Institute of Family Studies, Melbourne.
- Mitchell P. (2000b). *Valuing young lives: Evaluation of the National Youth Suicide Prevention Strategy*. Australian Institute of Family Studies, Melbourne.
- Mudaly B. (1997). An innovative drug education strategy for young people and parents of diverse cultural backgrounds. *Australian Journal of Primary Health—Interchange*, 3(2/3), 87-93.
- Mundy J. (1996). More of the same. *Connexions*, October/November, 12-14.
- National Crime Prevention. (1999). *Pathways to prevention: Developmental and early intervention approaches to crime in Australia*. National Crime Prevention, Attorney General's Department, Canberra.
- New South Wales Cabinet Office. (1999). *Families First: A Support Network for Families Raising Children – An Initiative of the New South Wales Government*. New South Wales Cabinet Office, Sydney.
- Prime Ministerial Youth Homelessness Taskforce. (1998). *Putting Families in the Picture: Early Intervention into Youth Homelessness*. Canberra: AusInfo.
- Rogers A, McCarthy M. Drugs and drug education in the Inner City: the views of 12 year olds and their parents. *Drugs: education, prevention and policy* 1999, 6(1), 51-59.
- Spooner, C, Hall, W. and Lynskey, M. (2001) *Structural determinants of youth drug use*. (ANCD Research Paper No 2). Canberra: Australian National Council on Drugs.
- Success Works Pty Ltd. (1998). *Young people and drugs: Needs analysis*. Department of Human Services, Drug Treatment Services Unit, Aged, Community and Mental Health Division, Melbourne.
- Toumbourou J, Blythe A, Bamberg J, Bowes G & Douvos T. (1997). Behaviour Exchange Systems Training: The 'BEST' approach for parents stressed by adolescent drug problems. *ANZJ Fam Ther*, 18(2), 92-98.
- Velleman R, Mistral W & Sanderling L. (2000) *Taking the message home: involving parents in drugs prevention*. A report for the Home Office, University of Bath.

Victorian Government Department of Human Services. (2000). *Going Forward: Primary Care Partnerships*. Melbourne: Aged, Community and Mental Health Division.

Victorian Government Department of Human Services. (2000). *Involving families in alcohol and drug treatment*. Melbourne: Drug and Health Protection Services Branch.

## CHAPTER 6: CONCLUSIONS AND FUTURE DIRECTIONS

Hando J, Hall W, Rutter S & Dolan K. (1999) *Current state of research on illicit drugs in Australia : An information document*. Canberra: National Health and Medical Research Council.

Hamel R, Elias G, Hay I. (2000). Developmental prevention in a disadvantaged community. *Paper prepared for the conference: The Social Origins of Health and Wellbeing: From the Planetary to the Molecular*, Canberra, July.

National Crime Prevention. (1999). *Pathways to prevention: Developmental and early intervention approaches to crime in Australia*. Canberra: National Crime Prevention, Attorney General's Department.